THE ART OF REVOLVER SHOOTING





Walter Winans

THE ART OF REVOLVER' SHOOTING

BY

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ILLUSTRATED FROM DESIGNS BY THE AUTHOR
AND FROM ORIGINAL PHOTOGRAPHS
BY ROUCH, FRY, PURDEY, PENFOLD, FTC.

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I CONSTANTLY receive letters from all parts of the world asking my advice on revolver matters. It seems, therefore, that there is a want which the following pages may supply, and in which I can give further and fuller

details than I could in separate letters to those who do me the honour of consulting me.

There is, as far as I am aware, only one other book (published some twelve years ago) on the revolver, and this concerns itself chiefly with descriptions of scores made by revolver experts and of the weapons they used. There is also a small pamphlet on *Self-Defence* which is very good, but unfortunately presupposes that the reader already knows something of revolver shooting.

My book may, therefore, be of some use to beginners who have no one at hand to show them how to set to work.

Working a thing out for yourself is always a much longer process than being started in the right way at first; and you may get into a bad way of doing things, which it is hard later to unlearn. Also, you may be working on a line which has already been tried and found

wanting, and which therefore renders your labour a mere waste of time.

I do not think that anyone who takes up revolver shooting-for other than man-killing purposes-will ever regret it. It is not only morally and physically a healthy sport, but it teaches self-reliance, coolness, and the control of one's temper, which latter croquet and golf, for instance, certainly do not. Revolver shooting is also an accomplishment which is always useful and sometimes of vital importance. It is thus unlike croquet, cricket, lawn-tennis, golf, and all such games, which only teach skill in forms that are of no practical use. It may be objected that the games I condemn are useful as exercises for the development of the body; but there are plenty of athletic sports such as shooting, hunting, swimming, polo, bicycling, etc., which give just as good, or better, exercise and at the same time teach skill in something higher than mere play fit for boys.

If men spent a twentieth of the time they now spend in useless games in seeking to attain skill with the rifle, revolver, or even gun, they would make their country invincible. Wellington is supposed to have said that battles were won in playgrounds; this may have been so in the days when men shot with "gas-pipes," and needed only to "loose off," the direction the bullet travelled in having no relation to the aim taken. With modern arms of precision, the battles of the future will be won in the deer forest and at the rifle-range. The difficulty of finding sufficient rifle-ranges in a densely populated country is one that will not grow less as time goes on. Meanwhile it should be borne in mind that, with gallery

ammunition, a five-yards range in any odd corner or cellar is sufficient for revolver practice. And, although the converse by no means holds, it may fairly be claimed that the greater difficulty of revolver shooting makes it a valuable training in the use of the rifle.

And the nation which is not a shooting one will "get left." I hope, however, that as the nations become more civilised, they will pay more heed to the idea of arbitration instead of war, so nobly inaugurated by His Imperial Majesty the Emperor of Russia (my fatherland), and that by the time the revolver becomes obsolete, there will be no need of a weapon to take its place, but that the revolver and war will die out together.

I have to thank Mr. F. G. Aflalo for so kindly coming to my assistance and editing this book. Anyone who has tried to write for the first time will understand how much I am indebted to him for the wearisome task of putting my words into shape and seeing the book through the press. I do not think, unless I had been able to rely on his assistance, that I should have undertaken to write a book at all.

W. W.

SURRENDEN PARK, KENT, ENGLAND, SEPTEMBER, 1900.





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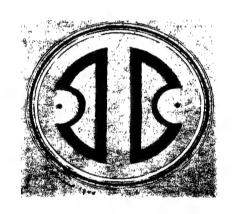
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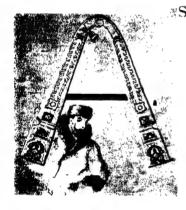
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THE ART OF REVOLVER SHOOTING

CHAPTER I

PERSONAL



*S PROBABLY no one has done more revolver shooting, or shot on a more systematic and experimental basis, than I have, the rough notes in this book may be of use to those who desire to take up revolver shooting. I had the further advantage of the instruction, advice, and help of the greatest revolver and

pistol shot who ever lived, the late Chevalier Ira Paine.

Sir Joshua Reynolds, when asked with what he mixed his colours, replied: "With brains." I found that Ira Paine's secret of success was that he shot "with brains." He thought out everything, and in consequence got results from the revolver which till then were considered beyond the possibilities of the weapon.

When I first began revolver shooting, I saw in a standard book on shooting that to hit a mark the size of a

man at ten paces was all that one could expect of a revolver! Nowadays, if a man cannot at that distance hit the pip of the ace of hearts, it is his own fault.

The nature of this work, which is practically an account of my personal experience with the revolver, renders it almost imperative to use frequently the pronoun "I"; and this, though certainly egotistical, enables me to put my thoughts and instructions in exactly the way I want.

I do not, except in the chapter on Self-defence—on which subject I am glad to say my personal experiences are nil—quote any other writer; I cannot therefore say, "Revolver shooters do so-and-so," but merely, "I do so-and-so." I also ask to be excused for using shooting and other slang; it is often possible to say in one word of the kind what might otherwise take a whole paragraph to express.

Other ways of getting at results with the revolver may perhaps be, and probably are, better than those which I recommend; but I have been fairly successful with my way, and this is my excuse for describing it. A man is a born revolver shot, just as he may be born an artist, mathematician, or horseman. The expert is there in embryo and needs only developing; still, most men can learn to shoot a revolver fairly well if they have neither too bad eyesight nor a trembling hand. A little shakiness in a beginner is nothing, and may arise from gripping too hard. I have never, on the other hand, known a man who is more than a very moderate smoker or drinker to do much good with the revolver.

My advice to all revolver shots is: Never fire a shot carelessly or at random. If you are getting tired, stop shooting. A few shots fired carefully are worth hundreds "blazed away."

Think out the reason for any shot not having struck "plumb centre"; find out the reason for the failure, and never be satisfied till you know why the bullet went wrong. Discover if it is inevitable, as, for instance, in the case of a gust of wind catching your arm, or a bad cartridge. If it is remediable, remedy it with the very next shot, and make up your mind that that mistake at any rate shall not occur again. I always presuppose the use of an accurate weapon. Practice with any other is waste of time.

Many people say: "Oh, revolver shooting is such a useless accomplishment; such a waste of time!" Is it? How often is a man's life—or a woman's, for that matter—saved by knowing how to shoot a revolver? I do not mean necessarily a man's own life, but that of someone dependent upon him. There is no necessity to be a bully, or, in most cases, to take life; it is the mere knowledge that you have the upper hand that often gives the safety, and puts a physically weak person on an equality with the strongest.

I remember, many years ago, my father was travelling to St. Petersburg from the frontier, before the railway was completed. It was winter; the driver lost his way, and the sledge got off the road in a snow-storm at night. The driver began unharnessing the horses (it was a three-horse "troika"), intending to ride off and abandon my father and his sister, who was with him, to their fate. My father happened to have in his pocket one of the first Colt revolvers ever made, presented to him by Colonel

Colt, and he took it out and asked the driver to reharness the horses and remain in the sledge. They waited thus all night, and in the morning they found their way back to the road. That is a case in which a revolver saved two lives without being discharged.

As they say in the States: "You seldom need a revolver, but when you do, you need it mighty badly."

[Just as I was writing these lines, a big old buck



ORIGINAL COLT REVOLVER

wandered into the garden from the Park. I stopped typing to drive him out. When I cornered him, he turned nasty and all but charged. A revolver might have proved useful.]

Others say: "What is the use of learning revolver shooting? Anyone can use it without special training at the short range required for self-defence." Can he? To begin with, many revolvers shoot almost a yard too high; besides which, a "duffer" with a revolver is one of the most dangerous persons to himself or his friends, and about one of the safest things that a man who is a good revolver shot can tackle.

Being able to shoot with gun or rifle does not neces-

sarily, unless he has practised with that arm, enable a man to hit even a large object with a revolver. It is very important that anyone who is armed with the shorter weapon should learn how to handle it, and not trust to his skill with other firearms as an excuse for not studying the peculiarities of the one-handed "shooting-iron."

As I am writing this, I have found confirmation of my contention that ordinary shooting does not teach revolver shooting. In a letter from Mr. G. D. Giles, Special Correspondent of the *Daily Graphic*, dated February 28th, from Koodoosberg Drift, he says:

"Having got the rations, in the shape of live-stock, the next thing is to kill it, and this, in the absence of butchers, is not such an easy thing as might be supposed. . . . An officer, armed with a revolver, tries to get into a favourable position for a shot. The cattle will not stand still, and the officer with the revolver walks round them, the muzzle occasionally pointed in the direction of the spectators. Suddenly there is a bang, followed by the ping of the bullet as it flies across the camp, and the bullock turns unconcernedly away. Then one of the men says: 'I think it dropped in the Lancers; they shouted!'"

This exactly corroborates my statement that a "duffer" with a revolver is more dangerous to spectators and himself than to the object which he wants to hit.

The man who knows nothing about a revolver will, most likely, carry it in his pocket with the hammer down on the cap of one chamber; then the slightest jar may send it off. Or, thinking he "knows all about it," he carries it at half-cock; then, when he draws in a hurry, the hammer catches in his pocket, and he shoots himself.

Another advantage in revolver shooting as a sport

is that it is a "clean" sport. There is no gambling or rough play. No man who drinks, or even smokes rather freely, can possibly shoot a revolver accurately. If he wishes to excel, he must get into training as regular and strict as if he were going to row a race.



CHAPTER II

PERSONAL (Continued)

T is a fact that I became a pistol shot because I was forbidden to shoot. My parents naturally, but, as I thought at the time, most unreasonably, forbade me to have firearms when I was a very small child.

As a shotgun or even a gallery rifle would have "given me away," I was reduced to smuggling in a French Flobert pistol. I found that the bulleted Flobert caps made too much noise, and were likely to attract attention, so

I got the breech caps with only fulminate in them, and filled them up with bread. The bread pellet, driven by the fulminate of the cap, had just sufficient power and penetration to go through paper targets and the "running deer" which I made. Also, I used to "snuff" candles with it, and knock over tin soldiers, and in fact I was always playing with this pistol. I remember one day how my cat and I were after a mouse. I got a shot at the mouse, using a bulleted cap, but I do not recollect hitting it. I

think this constant familiarity with the pistol made shooting with it become second nature to me.

In taking aim, I do not close the left eye; in fact, I am physically unable to close one without shutting both; but I can ignore what I see with either eye, being able to look through a telescope with both eyes open, though seeing only with the one that I happen to put to the eyepiece of the telescope. My eyes are equal as to sight and strength, which is, I understand, unusual, most men having a "master eye."

Once, when travelling from the frontier to St. Petersburg, a revolver which was hanging in our six-horse travelling carriage would have come in useful; but I was only six years old at that time, and had not learnt to shoot. I was with my aunt, nurse, and brother, the latter an infant. It was a pitch-dark night, and we had just changed horses, four wheelers, two in front. The driver, in getting up, swung his cloak; the horses started, the man fell, and we were off into the darkness! My aunt opened a door, lowered the folding step, and, kneeling on it, tried to get hold of the reins of the galloping horses but could not reach them; she then got back, shut the door, and prevented the nurse throwing herself and us children out. All the time, the revolver instinct being latent within me, I kept calling out: "Take the pistol and shoot the horses!" but nobody paid any attention to me. Finally, some mounted men overtook us, one or two of the horses fell, and this stopped the rest.

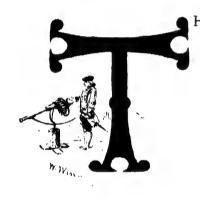
Now, thinking the matter over, the course that I then suggested is what I still consider would have been the

best thing under the circumstances for a revolver shot to have done. If he lowered the front window and broke the backs of the *prestashki* (i. c., outside pole horses), they would drag their hind quarters under the front wheels and stop the carriage without upsetting it; and this would then give him time to kill, if necessary, any of the other horses.



CHAPTER III

EVOLUTION OF THE REVOLVER



HIS subject hardly comes within the province of this work, as I am dealing with the practical, not the historical, side of the revolver.

In my article on the revolver in the *Encyclopædia of*Sport I went somewhat fully into this matter, and to it I must, therefore, refer anyone

seeking further details on the subject.

It will be sufficient here to point out that the revolver is by no means the embodiment of a modern idea; some of the very earliest firearms involved the principle of a revolving cylinder or barrels, but none of them were practicable with flint-, wheel-, or match-locks. The introduction of the copper cap enabled Colonel Colt to make the first practical revolving pistol, and "fixed" ammunition made possible the production of breech-loading revolvers.

There have been a few attempts to improve on the revolver by going back to modifications of the old "pep-

per-box," or many-barrelled pistol, but the mechanical difficulties of making so many barrels shoot "together" do not hold out much hope of success in that direction. Before Colonel Colt took up the problem of designing a practical revolver, many such attempts had been made on wrong lines, and even the purpose of a revolver was misunderstood. This is even now not clearly understood



by some, as when, for instance, this spring, a man gravely assured the public, in letters addressed to the various papers, that a revolver was of no use, because he did not consider that it shot accurately at two hundred yards and upwards. Imagine anyone wanting to shoot at such distances with a revolver! Still, up to four hundred yards one can hit a "second-class" rifle target.

Owing to the shortness necessary to make a revolver a portable arm, it is not possible to make the barrel shoot as accurately as would a long rifle-barrel. At long ranges, also, the fact of sights being necessarily so close together would preclude the same accuracy of aim as with a rifle, even if the barrel could shoot as well. Match rifle-shots at eight to eleven hundred yards have, for this reason, their hind-sights put on the end of the stock instead of the end of the barrel, so as to have the sights as far apart as possible.



ANCIENT FLINT-LOCK PISTOLS

Colonel Colt, however, knew better than to think that a revolver should shoot well at two hundred yards. He understood that there was need of a very small, compact arm, which could be fired very rapidly for self-defence at close quarters, still more at "half-arm distance," in which a rifle would be useless. There were some curious attempts made to transform a five- or six-chambered revolver into a ten- or twelve-shot one by loading each chamber twice over; that is to say, putting one charge in

and then another on top of it! The front charge was first fired, and then the one behind it,—that is, indeed, if the two did not go off simultaneously and burst the revolver. This was naturally found unpractical and dangerous; and,



VIEW SHOWING BARRELS HALF REVOLVED *



BARRELS IN THE FIRING POSITION *
COLONIAL FLINT-AND-STEEL REVOLVER. AGE, 170 TO 200 YEARS

indeed, that any sane man could have thought of such a combination seems almost incredible, though one often finds, when rummaging amongst old patents, harebrained ideas of this sort.

I have had one or two revolvers made with the "saw handle" of the old duelling-pistols, won with them at Bisley, and found such stocks very good for deliberate

^{*} By permission of the Scientific American.

Art of Revolver Shooting

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shooting, or, rather, when only one shot has to be fired; but one has to use both hands for cocking, as the projection which comes over the fork of the thumb prevents one-handed cocking. Most likely Colt also found this difficulty, and that is the reason for his having invented the typical revolver handle, which, with slight modifications, is used in most revolvers.



CHAPTER IV

SELECTING A REVOLVER



O not buy a cheap revolver by an unknown maker. It is not only very dangerous to the shooter to use such an one, but nobody can make any shooting with it. If you do not wish to pay a long price for your weapon, rather buy a secondhand one by a good maker than a new one of inferior pattern.

It is of importance, however, to ascertain that the rifling is still perfect, and has not suffered deterioration from wear or neglect.

You must first decide for what purpose you want the revolver; a "general utility" one is about as much use as a hunter who goes in harness—not much good for either purpose. If you want a hunter, buy an English hunter; if a harness horse, buy an American trotter. In the same way, for whatever purpose you want a revolver, buy one, if by any means you can do so, especially for that purpose. Anyhow, it is useless to compete with a short-barrelled pocket revolver against target revolvers.

This class of revolver is intended only for self-defence at short range, and has no pretensions to accuracy.

Read the chapter over carefully which describes the particular purpose for which you want the revolver, and buy accordingly.

I think that six and a half inches in the barrel, exclusive of cylinder, is about the most practical length; of course, a longer barrel theoretically gives greater accuracy, especially at long range, owing to there being more length to burn the powder in, and to the sights being farther apart, which minimises error in aiming; but practically this advantage is more than counterbalanced by making the revolver heavy at the muzzle, so that it therefore balances badly. The balance ought to be as near the trigger as possible. For a pocket revolver, a short barrel may be absolutely necessary for portability. At Bisley some men use very long barrels, and I believe seven-and-a-halfinch barrels are not unusual in their revolvers; but I prefer six and a quarter inches, exclusive of chamber, and I do not consider, although the Bisley rules allow it, that anything over that length in the barrel is a "Military" revolver and should be permitted in military competitions.

See that the trigger-pull is "sweet," and has no "drag." Also, have your trigger-pull not over four and a half pounds. The pull is often left very heavy, so as to be alterable to suit customers, and the shopman may forget to have this altered. If you are not hampered by rules, about three or three and a half pounds is the best triggerpull for general purposes. Have the thumb-piece of the hammer slightly roughed to prevent slipping. For rapid cocking, a rather long thumb-piece is an advantage.

I do not like a double-action revolver, except for a pocket revolver, as one cannot do accurate shooting when cocking with the trigger. I once saw a man, who rather fancied himself with the revolver, trying to make a score at Bisley by cocking in this style. I mildly suggested that it was not obligatory to shoot in this way, but he said he could shoot better with the double-action! I did not find his name in the prize-list.

For a man whose hands are apt to get moist, roughing the trigger may prevent slipping; but it may also make the finger sore if roughed too sharp.

Some revolvers have too narrow a trigger, almost like a piece of wire; a wide, spoon-shaped trigger is best, as less likely to cut the finger, especially with the regulation Bisley heavy trigger-pull.

Get a revolver which, when you grip the stock properly, has the barrel and your arm as nearly in a horizontal line as possible. Many makes of revolvers and all the automatic pistols so far produced have the stock much below the level of the barrel, and the chambers and barrel are, consequently, far above the hand. This makes shooting more difficult; you are apt to cant the weapon to one side, and the recoil is more severe on your wrist. The French duelling pistol has the handle ideally placed, which makes it so much easier to shoot than the average revolver. Do not get a revolver with a big stock, "specially made for the English market." These big stocks spoil the balance, and are clumsy. A man who holds a revolver properly does not need a big stock, even if he has a big hand. (I wear "seven-and-a-quarter ladies'" gloves.)

Herewith are given illustrations of the three principal

makes of revolvers used at Bisley: Smith & Wesson ("Winans' Model"), "Bisley" Colt, and "Target" Webley.



THE THREE PRINCIPAL REVOLVERS USED AT BISLEY: SMITH & WESSON "WINANS' MODEL", "BISLEY" COLT, AND "TARGET" WEBLEY

I won my championships the first few years with a .45 double-action cavalry Colt, using Eley's .45 black powder ammunition. Since then I have shot with nothing

but Smith & Wesson revolvers, either the .44 calibre Russian Model, the .45 Winans' Model, or the .32 calibre in Russian Model frame. The first I use with gallery ammunition as my twenty-yards' "Any" or target revolver; the same revolver with full charge as "Military" for fifty yards; the Winans' Model sometimes both as "Military" and "Any" alternative revolver at twenty or fifty yards, the .32 being my fifty-yards' "Any" revolver.

One of the reasons why the Smith & Wesson revolver is so accurate is because so much care is taken by the makers to have cylinder and barrel in perfect alignment; and it is not too much to say that I have never shot any revolver of any other make which I can so safely trust not to give me a wild shot.

To secure this result, the stop and stop-notch, which arrest the momentum of the cylinder and hold it in position during discharge, play the most important part. In all cheap revolvers the notches are made in the soft steel of the cylinder, and in consequence these



SECTION OF CYL-INDER, SHOW-ING HARDENED UNFINISHED

notches soon wear, putting the alignment out, which prevents accuracy. When the notch gets too much worn, this makes firing the steel shims, revolver even a positive danger. In the Smith &



SIDE PLATE OF MILITARY REVOLVER. RAISED STEEL BOSSES

Wesson revolver, this is obviated by a piece of hard steel being fitted into the side of the notch which comes in contact with the stop when the motion of the cylinder is checked. This is a special patent of the firm.

This make of revolver also has steel bosses, or collars,

fitted into the frame, to keep the hammer, trigger, etc., from coming in contact with the sides of the frame.

I merely designed the Winans' Model revolver to suit former Bisley rules as to "Military" revolvers, and



would have used the Russian Model in preference, had the rules permitted; but the Russian and United

States army revolvers were not considered "Military" revolvers by those rules.

Ornamentation in a revolver is a matter of taste. Personally, I prefer my "tools" as plain as possible, without any engraving. All projecting screw-heads, etc., should be filed down flat to prevent their chafing the hand; the trigger and thumb-piece of the hammer may also be cross-filed to prevent slipping, but not filed



"sharp" enough to make one sore; and I prefer a chequered rubber stock.

I have my revolvers gold-, silver-, or copper-plated all over, not for show, but to prevent, if I leave my revolver

inadvertently on the firing-ledge in a competition, a man using it, and saying: "So sorry; thought it was mine, don't you know."

By having the colour of the plating varied, you know



ELABORATELY CARVED REVOLVERS
Owned by the Author

at a glance if you have the right revolver for the particular work in hand: your "gold" for twenty yards; "copper" for rapid firing; "silver" for fifty yards, etc.

For rough work, and in strong sunlight, a revolver is best blued. I temporarily paint the rib, etc., on sunny days at Bisley with "sight-black." The pearl stocks,

though looking slippery, really give one a very good hold; when one's hand gets warm, they stick to the skin as if they were rosined. Ira Paine always used pearl stocks.

The most ornamental revolver I have ever seen is the lower illustrated on page 21, which was presented to me. It is in silver and carved ivory, decorated by Tiffany, and was the main attraction in the Revolver Section of the Chicago Exhibition; and I think it is the most costly revolver yet made. The other has a silver handle bearing deer-heads modelled by myself, the screw-heads forming the eyes of the deer.

I also have a very artistic pair of revolver "stockplates," which I had made of ivory and sent to Japan to be inlaid with gold and coloured stones. I left the design to the native artist, and he put a Japanese hawking scene on one, and on the other a picture of duckshooting with bow and arrow.

Of course, the revolver in its present form will have to give place to something better. I rather think the multi-shot pistol of the future will be on the revolver principle, but with a means of making a tight joint, at the moment of firing, between the cylinder and the barrel; or that the cartridge will be automatically pushed out of the cylinder into the barrel and fired from there, and that the cartridges will be much shorter, with some condensed powder, so that the cylinder can also be shortened. Also, the cocking and cylinder-revolving will be done automatically by the recoil.

The average automatic pistol, as at present made, seems to balance badly, owing to the unavoidably low

position of the stock, to enable the bolt to fly back over the hand. Moreover, its trigger is too close to the hand, has a necessarily heavy pull; and, if it happens to be held after a shot, the pistol is apt to "pump" out several shots, when only a single shot was meant to be fired. I think, pending the remedy of these defects, the pistol of the future will not take this form, but will be rather a

modification of the revolver. I find the Webley Fosbury revolver very good for rapid firing and prefer it to most automatic pistols.



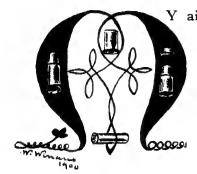
In price revolvers

vary. The Smith & Wesson costs about £5. The Webley solid frame averages £3 in blue and £3. 10s. in nickel. The "Extractor," Mark III., .38, by the same makers comes to £4. 16s. Morris Tubes for revolvers (not less than .320) cost £1. 5s. 6d. to £1. 10s. 6d. The Morris Tube Co.'s Trajectory Target (steel, for fifty yards) costs £3. 3s., and their Safety Mantlet (7 feet, $\times 3 \times 3$) costs £10, and Butt (7 feet $\times 3$), £2 10s.



CHAPTER V

AMMUNITION



Y aim throughout this work is to make it as complete as possible on the subject of revolvers and revolver shooting. Single-shot pistols and automatic repeating pistols I am not dealing with, so have merely referred to them in passing.

It was my original inten-

tion to give illustrations and minute descriptions of all modern revolvers and ammunition, taking both black and smokeless powders; but I found that this would only make the chapters on revolvers and ammunition like gunmakers' catalogues. Therefore I only illustrate typical instances and those revolvers and ammunition with which I have won prizes and which I have used constantly, and therefore know to be good.

Revolver ammunition is usually made in the following calibres: .32, .38, .41, .44, .45, .455. Most of these can be had loaded with various smokeless powders, as King's semi-smokeless, Riflite, Cordite, Walsrode, etc.

The Union Metallic Cartridge Company, U. S. A.,

have supplied me with great quantities of .44 "gallery ammunition," loaded with both round and semi-round bullets. These have a small charge of black powder, and I should prefer this ammunition out of a Smith & Wesson Russian Model revolver for self-defence, as well as for competitions up to twenty yards, as I find it the most accurate for exhibition shooting. I believe most pro-

.32-.44 is a special target cartridge, containing II grs. of powder and 83 grs.

of lead. Bullet seated even with mouth of shell. Pentration, 5 %-in. pine boards. Gallery charge, 6 grs. of powder and 50 gr. round ball loaded in same shell.



.38-.44 is also a special target cartridge, containing 20 grs. of

powder and 146 of lead, either self-lubricating or grooved bullet. Bullet is seated even with mouth of shell. Penetration, 6 %-in. pine boards. Gallery charge, 6 grs. of powder and 70 gr. round ball loaded in same shell.



.38 Winchesterrifle cartridge, containing 40 grs. of pow-

der and 180 grs. of lead. Penetration, 7 %-in. pine boards.



.44 Russian Model is a cartridge for long-range target

work. It contains 23 grs. of powder and 256 grs. of lead. Bullets are either self-lubricating or the regular grooved. Penetration, 7½ 1/8-in. pine boards. Gallery charge, 7 grs. of powder and 110 gr. round ball loaded in same shell.



.44 Winchester is the regular model 73 Winchester rifle

cartridge, and contains 40 grs. of powder and 217 grains of lead. Penetration, 6½ %-in, pine boards,



.450 cartridge contains 13 grs. of powder and 226 grs. of lead. Eng-

lish or American cartridges can be used.

fessional stage-shooters use it. I suppose the various English makers of ammunition could supply "gallery" charges in any of their various calibre cartridges, but I know of none and should not advise the beginner to try loading this sort of ammunition in English cartridge-cases for himself. The dome of the cap is generally higher than in American cartridges; if, therefore, a very small quantity of powder be put in the case and the bullet pressed down, the bullet will come down on the dome,

stop up the flash-hole, and cause a misfire. The way to obviate this is to take a wad of suitable calibre, make a hole in the centre, and push the wad down to the bottom of the cartridge before putting in the powder, so as to fill up the base of the cartridge and let the bullet "seat" on the powder, higher than the dome. Makers can do this properly, but an amateur may put the wad in too loosely, and a grain or so of powder may get under the wad. The result would be that, on the shot being fired, the wad would be driven half-way up the barrel, and might at the next shot cause an accident.

Be sure to use only low-pressure powder, if you use smokeless, as high-pressure powders are dangerous in a revolver.

Many people do not understand this difference in powder pressure, and injure their revolvers by experimenting with what become practically "blasting" instead of propelling charges.

For the twenty-yards "Military" competitions at Bisley, in which one is not allowed to use less than thirteen grains of black powder (or its equivalent in muzzle velocity of smokeless) and 216½ grs. of lead in the bullet, in less than .45 calibre, I have used Eley's .45 black powder cartridges and the Union Metallic Cartridge Company's similar ammunition in most of my competitions. I think the Union Metallic Company's gives slightly less recoil and fewer "unaccountables" than the English equivalent; I suppose it has a slower-burning powder. That is why, of late years, I have confined myself to the use of it. They also load these cartridges with a smokeless powder, which I have used

and with which I have made my bests on record in the rapid-firing competitions.

For the fifty-yards competitions, I have used these two makes of .45 calibre ammunition (with black powder); but my "best-on-record" scores at this distance were made with the Union Metallic Cartridge Company's .44 calibre and .32 calibre cartridges, loaded respectively with twenty-three and six grains of black powder, with the Smith & Wesson "Self-Lubricating bullet."

I have also done very good shooting with the ordinary Union Metallic Cartridge Company's .44 Russian Model ammunition, black powder, and ordinary bullet.

I find that in competing at fifty yards, one *must*, if physically strong enough to stand it, shoot a big charge to get the greatest accuracy.

This charge of twenty-three grains of black powder has a very heavy recoil, heavier than the English army .455 ammunition. I do not think that any other competitor at Bisley uses such a heavy load. The .32, with 11 grains powder charge, has not an unpleasant recoil. It is not nearly as heavy (in the .32 Smith & Wesson Russian Model (.44 "frame," .32 calibre) as the .45 with thirteen grains powder in a .45 calibre, and is very accurate at fifty yards, but by the Bisley rules it cannot be used in "Military Revolver" competitions.

Never use any ammunition different from that recommended by the makers of the particular revolver you are using, without consulting them. I have had several narrow escapes (in one case having a bullet stop half-way in the barrel) when experimenting with various powders suitable for rifles, but not for revolvers.

The new model Smith & Wesson cartridge with "Self-Lubricating bullet" (see diagram) is specially designed to prevent fouling and so do away with the necessity of constantly cleaning a revolver whilst shooting. This is, especially for ladies, a great advantage. The bullet is self-lubricating, instead of carrying its lubricant in canilures. In this bullet a better lubricant is used (or rather, perhaps, it lubricates better) than that which can be held in canilures; and it is forced by the



COMPLETE SELF-LUBRICATING CART-



CUT SHOWING DETAILS OF CONSTRUC-

A. Lubricant; B. Plunger; C. Ducts;

EXPLANATION.—At the moment of explosion, the lead plunger (B), being driven forward, forces the lubricant contained in the cavity (A) out through the ducts (C) in front of the bullet, and at a point where most effective.

The ducts being completely closed by the plunger, all escape of gas and loss of force is consequently prevented.

explosion into the grooves of the barrel in front of, instead of behind, the bullet, which is, of course, the more correct principle, for the bullet, being smooth without any canilure, gets an easier bearing on the rifling. It is made in regular .32, .38, and .44 calibres, also in .32 long, and special .38. Bullets are also sold separately.

Messrs. Smith & Wesson do not guarantee their revolvers when used with smokeless powder, and I would warn my readers to be very careful when trying experiments with such powders in revolvers; to use only ready-loaded cartridges, and not to try loading them themselves. Such powders also need special primers and pressures.

The average cost of revolver ammunition is 2s. 6d. per fifty cartridges. Kynoch solid-drawn brass cartridges (for Smith & Wesson and Webley revolvers) run to about £2. 15s. per thousand, for .44, £2. 7s. 6d. for .38, and £1. 16s. 8d. for .32. The French smokeless powder is excellent, but there is difficulty in exporting it out of the country.



CHAPTER VI

CLEANING AND CARE OF WEAPONS



LWAYS clean your revolver the moment you have finished shooting. If you leave it over till the next day, you may as well throw the revolver away as expect to win prizes with it.

The larger the calibre, the easier it is to clean and the less chance is there of spoiling the rifling by jamming the rod in it.

I prefer wooden rods as less apt to spoil the rifling, but the very narrow calibres require a metal rod (soft metal for preference), as the wood would have to be too thin and would be liable to break in the bore.

Clean from the breech, not the muzzle end; the last fraction of an inch at the muzzle is where the rifling, if damaged, spoils the shooting most. For the same reason, it is as well to have the rifling "reamed off" at the mouth of the muzzle, so that the edge of it is protected. If you use nitro-powders, examine the interior of your barrel at frequent intervals after cleaning, to see if there is any damage going on.

Use the cleaning fluids recommended for the particular powder you are using, as what may be good for one powder is of no use for another. I use Hillias' cleaning fluid, finishing up with Marlin gun-grease.

The great thing is to clean very thoroughly. I use cotton-wool of the best quality rather than tow, and I do not use boiling water unless in very exceptional cases, for fear of overlooking a spot in drying, and getting rust in consequence. If necessary to use water to remove fouling, let it be as hot as possible.

Do not try to oil the lock, or put it right; send it occasionally to the maker to be seen to. It is also well to have a cleaning kit with wooden, not metal (except for calibres of .32 or less), cleaning rods, cotton-wool, cleaning fluids, screw-drivers, etc., all in proper compartments, and put back when used. See that the cotton-wool is absolutely dry and clean before using it. Throw away such pieces as are used. Do not use too big a piece on your rod, such as would get the latter jammed in the barrel, as you may ruin the shooting qualities of the bar-



EXTENSION STOCK AS APPLIED TO .44 SINGLE-ACTION REVOLVER

rel by using force to remove it. Have the cleaning rods long enough, or you may bark your knuckles.

I do not care much for detachable stocks for revolvers. They only turn a revolver into an inferior carbine, and the revolver is not meant for a long-range weapon.

I also do not like the cardboard cases in which American revolvers are usually packed for permanent use; they are not strong enough and are apt to injure the sights, especially fine sights. A holster, again, is not the thing in which to keep a revolver habitually, as the sights get knocked about; if the holster is used out-of-doors it gets damp inside and rusts the weapon. Great care should always be taken to see that the holster is absolutely dry inside before placing a revolver therein. To dry the inside of a holster, make some oats very hot in a saucepan and fill the holster with them, emptying them out when cold. Some American holsters are made of indiarubber, to prevent perspiration from the body rusting the revolver, but such an one is very liable to retain dampness inside. The holster which I prefer (for wearing, not as a pistol-case) is a cowboy holster, without any button to the flap. If you fasten the flap, you cannot get the pistol out in a hurry. A lining of rabbit fur is useful in keeping out sand or dust.

My pistol-cases are good, strong, and solid, of leather, with brass corners like gun-cases. Each case holds four, placed either side by side, each pistol in its own compartment, or, with a tray, two in the tray and two below. If you have only two revolvers, they can be put in a case without this upper tray, or the tray can be used for cartridges. Under all circumstances, use a good lock,—not the sort that any key fits,—keep the case locked, and wear the key on your watch-chain, so that you are sure nobody gets at it. Keep the case in a dry place, and look at the pistols occasionally, when they are not in constant use, to see that they are not rusting.

Keep your cartridges, if not in the same case as the revolvers, locked in a good leather case. This may be fitted with compartments for various calibres and loads. The word "loaded" may with advantage be inscribed inside the lid of the revolver cases. People then feel less encouragement to meddle with the contents.

3



CHAPTER VII

SIGHTS

IGHTS are made in many forms. Some suit one man best; others another. You cannot decide which suits your individual case without trying each sort for yourself.

When you find one form which suits you, it is a pity to risk spoiling your shooting by changing to others; a beginner should never do so, as he will

get into an uncertain way of taking his sights, instead of always the same, which is the only way to make reliable, consistent, shooting. Of course, all your sights may be useless if you are going to shoot in a competition, consequent on the authorities making some new rule as to "fit for rough usage"; and then you will have to shoot with whatever will pass the rules.

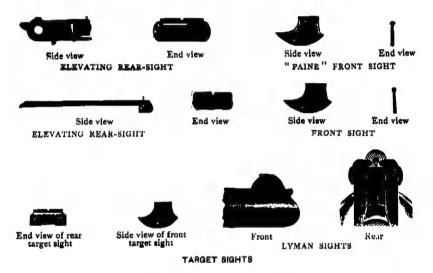
My patent sight has, so far, complied with every rule, and it can be used for hammering nails without sustaining damage.

The main point is to have a front sight at once easily seen, and of which you see each time the *same amount*; not sometimes more and at other times less, else you cannot keep your elevation.

Also the "U" in the back sight should have bevelled edges, so as to give a sharp edge, else it looks "woolly."

Again, if you are not able to see daylight each side of the front sight when it is in the "U," you cannot be aware that you are not covering part of the front sight on one side or the other, and, therefore, whether your aim is in horizontal axis with your barrel.

The reason I prefer a "U" to a "V"-shaped notch



in the hind sight is because in the "V" you do not see this daylight so well.

The greater distance between the revolver hind-sight and the eye enables a man with normal sight to shoot a revolver without the aid of spectacles up to a more advanced age than is the case with rifle shooting. A healthy eye merely loses its elasticity, or its capacity to adjust the focus to near objects, with age; and a rifle hind-sight is very near the eye as compared to the distance of a revolver hind-sight with the arm at full stretch.

The same principle is involved when an elderly man has to hold a newspaper a long way from his eyes if he wants to read without glasses. I know several men who have come to glasses for reading, without yet needing them for revolver shooting.

As soon as you can shoot well enough to know whether bad shots are the fault of the sighting of the revolver or of your own holding, you can sight the revolver properly for yourself; and in this way you can do the sighting much more accurately, and with greater nicety, than by taking it to a gunmaker and saying: "Alter the sights to shoot three inches higher and two to the left at twenty yards, and open the 'U' a little," etc. To do this, have front and hind sights made of horn, put in temporarily, without any "U" in the hind sight, and both hind and front sights a little higher than you think necessary. Then go to the range with your revolver and several files of various sizes, including some that are round. Make a slight "U" in the measured centre of the top edge of the back sight. Shoot a few shots at the range you want to sight for (taking care that you do not go clean over the top of the butt, owing to being sighted too high), and then keep working with the files, first at one sight and then at the other, till you get them approximately right.

Do not get the "U" down too close to the barrel, as it will thus give you a blurry aim, especially when the barrel gets hot. If you find you shoot too high, unless you cut this "U" down take out the front sight and put in another higher one, rather than file the "U" unduly low.

Remember when filing: Filing at the bottom of the "U" makes you shoot lower; filing at the top of the front sight makes you shoot higher; filing on the side of the "U" or the front sight makes you shoot towards the side on which you have filed. Therefore, by filing a very little at a time where necessary, you can at last get your sighting perfect. Be sure to file a very little at a time, or you will overdo it. As in sculpture, you can easily take off, but cannot replace. If you have taken off too much anywhere, you may be able to correct this by filing so as to alter the direction. For instance, if you have been shooting too much to the right, you can correct this by filing on the left of the front sight or the left of the "U," whichever makes the more symmetrical job; but if, by doing so, you make the front sight too small or too narrow or make the "U" too wide, there is nothing to do but to put in a new front or hind sight and begin shooting and filing again.

When you have got the sighting perfect, work carefully with your file (taking great care not to spoil the edge of the "U" nearest to the eye when aiming), and give a chamfered or bevelled edge to the other side of the "U," so that it has a knife-edge. This is to make the "U" look clear and yet allow the back sight to be strong. On this principle, you can let the hind sight be strong and over a quarter of an inch thick, and yet have a nice, clear "U." Do not have the "U" deeper than a semicircle. If this "U" is too deep, it hampers your view of the object aimed at. In fact, it should not be quite a real "U," but a semicircle. You can also file all round the front sight, giving it a taper towards the muzzle, but

keeping unaltered the silhouette that you see when aiming, so that the outline shall then stand clear to the eye.

A gunmaker's vice (padded, so as not to bruise the revolver) is a useful thing, as it leaves both your hands free to use the files.

I cannot tell you how much you may undercut the front sight, assuming you intend to use it at Bisley, as the rules alter so from year to year. I have an undercut bead-sight which some years was allowed at Bisley as a "Military Revolver," and in other years not. The best plan, if you are in any doubt as to its passing, is to send your revolver to the Council of the National Rifle Association for their approval some time before the Bisley meeting.

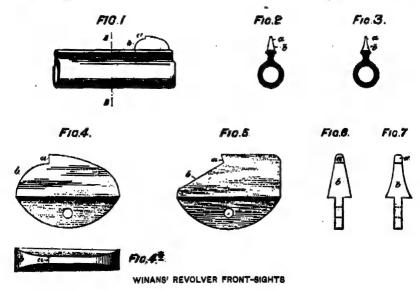
When you have finished, and have had a final shoot to see if this finishing has not spoilt your elevation, etc., you can send your revolver to the maker, and ask him to make your sights precisely like your model ones, and to fix them permanently on the revolver without screws, if for Bisley use, so as to comply with the rules. When you get the revolver with these sights, if the work has been properly done, a very little more filing will put the matter right.

Should you not be shooting at Bisley, or at any of those clubs which shoot under Bisley rules, you can, of course, get a revolver with Smith & Wesson's "Ira Paine" adjustable sights. Carry a miniature folding gilt screw-driver and sight-case on your watch-chain, as I do, and you will then be able to shoot in any light, at any range, or in any style of shooting, by merely giving a

slight turn to the adjusting screws to alter your elevation or direction; or take out a sight from your little case of sights, if a sight breaks or you want a different size or shape. Public opinion has not yet been educated to the point of considering this "a practical military sight," but this will come—in time.

EXTRACTS FROM SPECIFICATION OF WALTER WINANS' REVOLVER FRONT-SIGHT

"Great difficulty has hitherto been experienced in seeing the same amount of front sight each time aim is taken, unless the base of the sight is sufficiently undercut to form a "bead sight"; such undercutting being, however, detrimental, as it weakens the "sight" and ren-



ders it very liable to injury, and is not permissible in Bisley revolver competitions. The object of my invention is, therefore, to overcome this difficulty, and to this end I make the "sight" of metal, horn, wood, or other hard substance, with a strong, wide base, preferably of the "barleycorn" or triangular section.

The face of the upper part of the "sight" facing the marksman (as much of it as it is desirable to see in aiming) is made vertical, or

inclined slightly towards the marksman, so as to cause it to appear black, as if in shadow. The visible part of the sight below the face inclines forward from the marksman, and downward, so as to reflect the light and enable the face of the sight to be at once distinguished by its difference of shade from the lower part. It may be polished or plated to assist in reflecting the light, while, as a contrast, the vertical face is cross-filed, or "roughed," or may be hollowed out, so as to be in shadow, and give it a "dead" black appearance.

In the accompanying drawing, I have shown what I consider the best means of carrying this out. Fig. 1 is a side view, full size, of a portion of a revolver barrel fitted with my improved "front-sight."

Fig. 2 and Fig. 3 are sections of the barrel at A B, showing two forms which the sight may assume in section, one having straight sides, the other concave. I show in Figs. 4 and 4^* , on a larger scale, for the sake of clearness, a side and plan view of the sight shown in Fig. 1, and in Fig. 5 a modification of this shape. Figs. 6 and 7 are end views, showing two sectional forms of the sight, and corresponding in size with Figs. 4 and 5. In Figs. 1 and 4, it will be seen that a is the vertical face of the sight, which is designed to present a dark appearance to the marksman; and b is the polished, inclined surface, which takes a rounded form. In the modification, Fig. 5, the face a is slightly inclined towards the marksman, and the bright or polished surface b takes the form of a flat incline.



CHAPTER VIII

LEARNING TO USE THE REVOLVER

T is assumed that you have procured an accurate revolver, properly sighted.

First, open the revolver, and make sure that it is unloaded. Always do this before handling a revolver.

Take a bottle of sight-black, and paint both sights over with the liquid. I have seen men try to compete, even at Bisley, with their sights in a shiny state, which made it impossible for them

to make good shooting on a white target with black "bull."

For game shooting, or for military purposes, of course, a "dead" white (ivory for choice) tip to the front sight is preferable, or my patent military front-sight, which answers the purposes both of a light on dark, or dark on light, sight.

With a revolver, the first thing to consider is safety. It is, owing to its shortness, one of the most dangerous of firearms to handle. Even an expert must exercise great care; and in the hands of a beginner or a careless person it may be fearfully dangerous. I have had many very narrow escapes in teaching men how to shoot; it is

not even safe to be behind them; they will turn round with the revolver at full-cock, pointing it at you, and say: "I cannot understand why it will not go off; see! I am pulling as bard as I can at the trigger."

It is indispensable to have a safe background. Some people think that if the target is fastened to the trunk of a tree it is all safe, since the bullet will not go through the tree. This may be so if the tree is hit, but the bullet will, most likely, go past the tree when the beginner fires; or, what is just as dangerous, graze the tree and go off at an angle. Also, in shooting with round bullets, and light gallery ammunition, the bullets may rebound from a hard tree and come back on the shooter. This I have actually seen happen.

I also remember, many years ago, a servant was told to take an old Colt house-protection muzzle-loader out in the garden and to empty the chambers, as they had been loaded many years and it needed reloading to avoid the chance of a misfire. He only fired one shot, and came back limping! When asked why he had not fired the rest, he said he had "no use for" another shot. He had fired at a brick wall, a few feet distant, and the bullet had come back and hit him in the knee.

A good background is a high sandy bank, a thick pile of fagots, or, if not closer than fifty yards, a high brick or stone wall. The target may be stood some fifteen yards away from the wall to prevent danger of a bullet coming back on the shooter, and then the shooter can be far enough from the wall, if the wall is a background. If a lot of shooting is done, it is not very good for the wall, and if many shots hit the same spot

they may gradually make a hole, as I did the first year at Wimbledon when old "sleepers" were used for the butt. Iron butts are expensive, especially for the large surface required by a beginner; at twenty yards, a beginner could not in my opinion safely shoot at a background less than twelve feet high and some ten in width. Even then there should not be anyone beyond it within half a mile, lest he should happen to let off by accident. Shooting out to sea is safe, if one keeps a good lookout for boats; but the glare from the water is bad. A sandor chalk-pit is a good place to shoot in, or one can shoot against a high chalk cliff. It is dangerous to shoot anywhere where people cross unexpectedly, as from round the corner of a building.

The Morris Tube Co. (11, Haymarket, London) makes very good butts, and can put up Bisley disappearing targets, apparatus, etc., and supply regulation cardboard targets. It also puts up safety screens to shoot through, dispensing with the necessity for a large butt.

The great thing is that the revolver should never point in any direction where it would matter if it went off by accident. This rule should be observed even with an empty revolver, because so many "I-did-not-know-it-was-loaded" accidents occur. All children who point a weapon, even a toy one, at anyone, should immediately be given a severe whipping.

The butt which I have used for years for disappearing and stationary targets is an ordinary third-class iron rifle target, six feet by four, with a plate of thick lead one foot square hung in the middle. It is the latter that is struck; the rest of the butt is merely a precaution in case the

revolver should go off unintentionally, from the hammer slipping, or some similar cause. The bullets bury themselves in the lead and do not splash, and the lead falls off in clusters and can be remelted. A beginner, however, could not keep all his shots on the lead; such a butt is only suitable for one who is sure, even in rapid firing, of keeping every bullet on the lead plate, or, if it goes off by accident, on the iron butt.

In order to make revolver and rifle ranges safe I took out a patent in 1895 for a safety butt of which I give below a description and diagram.

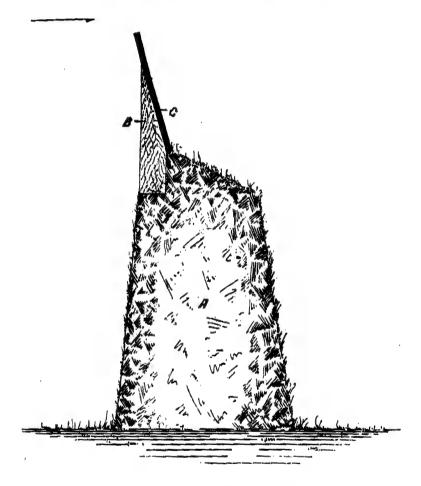
In order to diminish the number of ricochets from bullets striking the earth short of the target butts, it is usual to build, at intervals across the range, walls of turf, so that a bullet dropping short of the target will bury itself therein. If, however, a bullet grazes the top of one of these walls, it will ricochet as badly as ever, particularly if the turf wall or bank is faced with timber, as is sometimes the case.

To render the turf walls more efficacious than heretofore, I furnish them at their top with a structure from which the bullets will not glance, so as to be diverted from their course and caused to assume a dangerous direction.

I apply to the summit of the turf walls or banks a line of planking, the front of which, towards the firing-point, is perpendicular, while the back is chamfered off to a knife-edge at the top. The inclined back of this planking is covered with a layer of felt, india-rubber, or similar soft material, the edge of which projects above the knife-edge of the planking, in a slightly forward direction, towards the firing-point.

In the accompanying drawing I have shown, in end view, a turf wall furnished, in accordance with my invention, with the non-deflecting planking and felt. A is the wall or bank of earth covered with turf, which will stop all bullets fired in the direction of the arrow which fairly strike it. B is a wooden rail or plank mounted on the summit of the bank and having a perpendicular face toward the shooters, and an inclined or chamfered back as shown. C is the strip of felt, india-rubber, or other flexible material, attached to the back of the planking B, and projecting slightly above the top edge of the said planking, in a forward direction.

In practice, a bullet grazing the top of the turf wall would be prevented by the planking from glancing away in a dangerous direction, although the said planking would not stop its course in the direction



of the target. In the same way, if a bullet touches the topmost edge of the planking, the felt or india-rubber will prevent an upward ricochet; while the bullet, if merely touching the felt or other soft material only, will not be appreciably diverted from its course.

Having got a butt, the learner should take a firm, narrow wooden table and place it some ten yards from the

target. This target is preferably a "Bisley fifty-yards target," four-inch bull's-eye. The Bisley cardboard targets are cheap; and, by pasting white patches on the white and black on the bull's-eye bullet-holes, one target can be used for a long time. I refer to the fifty-yards target because this four-inch bull's-eye is very easy to hit at ten yards' range. The Bisley revolver "bull's-eyes" count, at all ranges, seven points; the concentric rings counting one point less, each, till the outermost one, which counts two points. The highest possible score, therefore, for the six shots is forty-two, or six times seven. It is best to shoot at this very big bull at ten yards, as making bull's-eyes encourages the beginner; and, as he gets more proficient, the two-inch twenty-yards "bull" can be substituted. This I think preferable to going back farther from the target as your skill increases; also it is safer, for the nearer the shooter is to the butt the wider his shots would have to be for him to miss it; whereas, if he goes back to fifty yards, he may easily shoot over a very high butt.

Place your empty revolver on the table, the weapon lying on its left side with the muzzle towards the target. The table is preferably a narrow one, so that, during the process of loading, the muzzle points to the ground beyond the table and not to the table itself, an accidental discharge being thus immaterial; a foot wide is about right; the length does not matter, so long as it will hold your telescope, cleaning things, and cartridges.

Position.—The position for shooting which I am now going to describe, is the one in which I shoot and the one which I have found from experience suits me best. This position, however, will have to be modified



AUTHOR'S SHOOTING POSITION

according to the build of the shooter (I am five feet ten inches high, and weigh one hundred and fifty pounds); a stouter or shorter-necked man than myself might have to stand more sideways. I remember once, on the first day of a Bisley meeting, the non-commissioned officer in charge of my target saying: "Excuse me, sir; you are standing wrong." I said: "What am I doing wrong? Show me." He took my revolver - it was empty (I had been merely looking along the sights at the target to see if they needed blacking)-and showed me the regulation, conventional position-right side to the target, right arm bent, head and neck bent down to look along the sights, little finger under end of stock, etc. The position he showed me not only cramps one, strains the eyes (from having to look "round the corner" to the right), and prevents one from being able to shoot at moving objects, but one is very apt to be hit in the face with the revolver from the recoil of a heavy charge. A beginner almost invariably stands in this awkward, sideways position; it is also the conventional position with all artists, just as raising the right arm in jumping a fence. (See cut on page 110.) I suppose the origin of it is from the duelling position - trying to give your opponent a narrow target to aim at. From the shape of some men's figures, though, I am of opinion that they would present a narrower mark, especially in the region of the belt, when facing their enemy. But this is a digression.

Stand facing the target; the right foot pointing straight for the target, or perhaps a shade to the left (if the ground is slippery, this gives you a firmer foothold); the left heel distant from six to nine inches to the left of the right foot, according to your height (my distance is eight inches), and about an inch farther back; the feet turned out about as much as is natural to you when standing.

Stand perfectly upright, not craning your head forward; the left arm should hang down straight and close to the side in the position of "Attention." Some people bend the left arm and rest the hand on the hip; but I think this looks affected, and it is not as workmanlike as if the arm hangs straight down.

If you are trying to "hold" an especially important shot, and find yourself wobbling off your aim, it is a great help to grip your thigh hard with your left hand; this especially applies in a gusty wind.

Now lift the revolver with your right hand (the weapon is empty, remember) and cock it. There are two ways of cocking: one using both hands and one using only the shooting hand. I do not refer to the double-action cocking by pulling back the trigger, as I do not think shooting with any accuracy can be done by this method; and it is, moreover, the cause of half the accidents happening with the "I-did-not-know-it-was-loaded" shooters. The cocking by the trigger is only useful in a revolver for self-defence at very close quarters.

To return, this single-handed cocking is done by putting the thumb on the hammer and by the action of the thumb muscles alone bringing it to full-cock. Take particular care that the first finger is clear of the trigger, or else you will either break or injure the sear notch, or have an accidental "let-off." With practice, this way of cocking becomes very easy, and can be done with great

rapidity. I personally can also let the pistol down to half-cock (manipulating the revolver with one hand, with the trigger finger and thumb); but I would not advise a beginner to try this, except with an empty revolver, and even then only one that he does not mind the chance of



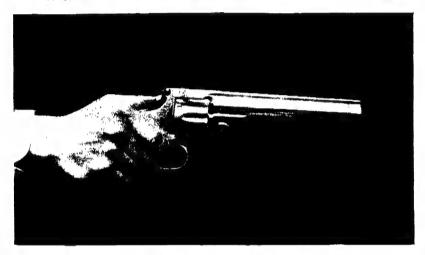
HOW TO COCK A REVOLVER

spoiling, as he is very apt to break the nose of the sear if he bungles it.

By practice, the thumb and forefinger muscles (abductor pollicis and adductor indicis) develop enormously, and you need not mind if at first it seems difficult; but stop at first as soon as they feel tired, or you may strain them. Revolver-shooting is good also for the flexors of the forearm and for the dorsal muscles. A small hammer with short "fall" is easiest to cock, as well as to

make good shooting with, for such a hammer takes less time in falling, and the aim is, in consequence, less likely to be disturbed.

The beginner will find that it assists the cocking to give the revolver a slight tilt to the right and upwards, taking great care to bring it back with the hind sights



THE CORRECT WAY TO HOLD A REVOLVER

horizontal afterwards, as holding the sights tilted is one of the chief causes of bad shooting.

For double-handed cocking, assist the right hand by taking the revolver behind the chambers with the left hand, so as not to get burnt if it should go off by accident; keep the barrel horizontal and pointed at the target, not towards your left-hand neighbour (if you are competing), as is often done; and, while it is thus steadied, cock the revolver gently, not with a jerk, bringing the hammer well beyond full-cock, so that it sinks back into the bent with a well-defined click, keeping the first finger clear of the trigger.

Now, stand with the revolver in your right hand, just clear of the table; right arm full stretch; thumb stretched out along the revolver (see illustration), but the first finger must be outside the trigger-guard (not touching the trigger) during this stage.

Some men shoot with the second finger on the trigger and the first along the revolver; but this is a clumsy way,



THE CORRECT POSITION OF THE THUMB

and the first finger is apt to be burnt with the escape of gas from the cylinder. The habit was acquired from shooting the Martini rifle, the clumsy "grip" of which made this manner of holding necessary.

The great thing is to have your grip as high as you can on the stock, in line with the axis of the barrel, or as near this as is practicable. With the Smith & Wesson Russian Model I have it, as shown in the diagrams, actually in line with the bore of the barrel.

Some American revolvers for the British market often

have specially long, big handles, or stocks, because of the habit (or is it the Regulation Position?) of holding the stock low down with the little finger beneath, prevalent in England. Now this sort of position makes the recoil come at an angle to the wrist, throws the barrel up at the recoil, spoiling the accuracy, and puts more strain on the wrist than is necessary. I remember a very strong-wristed man firing one of my heavily charged fifty-yards revolvers and spraining his wrist at the first shot, owing to holding it in this way; whilst I have fired hundreds of rapid-firing shots straight on end with it without hurting myself. I take the recoil just as a man catches a hard-thrown ball, letting arm, hand, and wrist fly up together.

The revolver barrel, hand, and arm should all be nearly in one line, the thumb along the left side, so as to prevent jerking to the left in pressing the trigger (in the same way as the left arm is fully extended in shooting with the shotgun), and not crooked, as all beginners insist on holding it.

You must be constantly on the watch that you do not crook your thumb, until the extended position becomes second nature to you. Some makes of revolvers have the extractor lever in a position which renders this grip with extended thumb impossible.

For the benefit of beginners who are not target rifleshots, the following explanation may be necessary: The target, for the convenience of locating shot-holes, is supposed to represent the face of a clock. The top of the bull's-eye, (which we term "bull" for brevity) is called XII o'clock, as that is, of course, where the numeral XII appears on a clock face, and so on for all the other numerals: half-past four, for instance, is half-way between where the numerals IIII and V appear on a clock. I was once shooting in the presence of a German naval officer, and when I made a "half-past five" "bull" shot he said, "South-east," his professional instinct making him liken the target to the face of a compass.

First take a deep breath, and fill your lungs. Now slowly bring your right arm to the horizontal, keeping your eyes fixed on the bottom edge,—at "six o'clock" of the "bull"; whilst you are doing this, put your forefinger inside the trigger-guard, and gradually begin to feel the trigger and steadily increase the pressure on it straight back, not sideways. Whilst you are doing all this, also gradually stiffen all your muscles so that you are braced up, especially about the right shoulder, as though you were walking along the pavement and saw a man coming towards you whom you meant to shoulder out of your path.

You may breathe naturally until the revolver is levelled, then hold your breath; if you cannot get your aim satisfactorily before you feel you want to take a fresh breath, lower the pistol, take a deep breath, and try again. If you have followed these directions carefully, you will find, when the hind sight comes to the level of your eyes (closing your left eye or not, as you find best, without any movement of the head), the front sight will be seen through the middle of the "U" pointed at the bottom of the bull's-eye, the top of the front sight just touching it at "six o'clock." If everything has been done perfectly, at the moment this occurs the pressure on the trigger will have been increased sufficiently to cause the hammer to fall, and, after it has fallen, you will see

the top of the front sight still just touching the bull's-eye at its bottom edge.

If the revolver had been loaded (assuming, of course, that it was an accurate-shooting one and properly sighted), you would have had a central bull's-eye for your shot. Most likely, however, you will find that the revolver came up all of a tremble, and that, as the hammer fell, the front sight was jerked very wide of the bull and perhaps even hidden by the hind sight.

Do not be discouraged, but cock the revolver and try again. By the way, it is best to have a "dummy" cartridge or an exploded one in each chamber whilst doing this "snapping" practice, as otherwise the jar may do damage to the revolver and perhaps break the mainspring. There are dummy cartridges, made with a rubber "buffer," for this practice.

If you still find your hand shaky (and it is not naturally so), it most probably arises from your gripping too hard.

The action of "letting off" should be like squeezing an orange—a squeeze of the whole hand. Start with a light grip when your hand is down, and gradually squeeze as you come up, the trigger-finger squeezing back; and the hammer will fall without the least tremor or without the sights moving off the point they covered during the fall of the hammer. The main thing of all in revolver-shooting is to squeeze straight back. Whenever you find yourself shooting badly see if you are not "pulling off to one side"; and in nine cases out of ten you will discover that this was the cause of your bad shooting.

Some men can never squeeze the trigger straight back,

and have to allow for this by getting the hind sight "set over" to one side to correct it; but this is a slovenly way of shooting, and, as the pull to one side may vary according to the "jumpiness" of the shooter, it prevents his being a really first-class shot.

Keep the hind sight perfectly horizontal; beginners are prone to cant it on one side, which puts the bullet to the side towards which you cant.

After a little practice, you will be able to "call" your shots, that is to say, you will be able, the moment the cartridge explodes, to say where the shot has struck the target, as you know where the sights were pointed at the "squeeze-off."

After six shots, make a pencil-cross over each bullethole, so as to know where your former shots hit. After twelve hits it is best to take a fresh target. At the end of the day's shooting, you can cover the holes by pasting black patches on the bull's-eye holes and white on the rest, and use the target again.

I will now say why I insist upon the importance of a table being before the shooter. The usual procedure for a beginner with the revolver is this: He cocks the revolver with both hands, pointing it at the spectators on his left whilst doing so; he then holds it with his right arm close to his side, pointing it to the ground at his right foot. He then brings it up with a flourish, high above his head, and lowers it to the target, jerks the trigger, and "looses off." Of course he does not hit the target, but makes a very wild shot. After a few more shots on this principle, getting more and more wild, and making bigger flourishes with his revolver, he finally lets it

off by accident whilst his arm is hanging by his side; and he is lucky if he does not make a hole in his right foot.

I remember once a man telling me (he professed to be an expert with the revolver) that I was wrong in keeping my revolver pointed in front of me towards the target when preparing to shoot. "You ought to hold it like this," he said, letting his right arm hang close to his side and keeping the revolver pointing downwards; "then it is quite safe." At that moment it went off and blew a big hole in the ground within an inch of his foot!

By my system of having a table in front of the shooter, close to which he stands, and from which he lifts the revolver, he cannot shoot down into his feet. But he must never turn round or leave the table without first unloading the revolver and placing it on the table; nor, on any account, must he let anyone go up to the target or be in front or even get level with him whilst the revolver is in his hand.

Now, as to the trick of lifting the revolver above one's head before firing: I cannot understand why people want to do this. It only frightens spectators; besides the shooter is running the risk of shooting himself through the head; and in competitions or in self-defence time is too valuable to waste in such antics. What would be thought in covert-shooting of a man doing "Indian-club exercises" with his gun before firing each shot? Just as, when you see a man wet the point of his pencil with his lips, you know that he cannot draw, so, if a man flourishes his revolver you may wager that he cannot shoot. I have often been asked, "How do you shoot your revolver? Do you bring it up or down on your object?" I reply:

"What is the use of lifting it up above the level of your eye, merely to bring it down again?" For self-defence, you take it out of your pocket or holster; in competitions, you take it from the table. In both cases it is brought from the level of your hips. Why, then, should you lift it above your head and lower it again? No; bring it up straight on the object by the shortest and quickest route. In the case of self-defence, you would have your man down before he had finished flourishing his revolver round his head.

When you are pretty confident that you can keep your sights properly aligned at the bottom edge of the bull while the hammer is falling, you can try a few shots with a loaded revolver. It is best to load only some of the chambers, irregularly spin the cylinder round, after the revolver is closed and at half-cock, so as not to know which chambers are loaded, and every time you find you jerk off with a shot, return to the snapping-empty-cart-ridge practice. This latter is good practice, even when you become a skilled shot; and I often have a few minutes of snapping practice in my room.

Place the box of cartridges beside, and to the right of, the revolver. Use only a very small charge (gallery ammunition for choice) at first, as nothing puts a beginner off so much as the fear of recoil. Stand behind the table, the revolver being between you and the target, and take the revolver by its stock in the right hand. Do not turn the muzzle to the left, but straight out towards the target. Put it in your left hand and load it. This procedure varies with different makes; with the Smith & Wesson Russian and Winans models, you lift the catch with

your left thumb and press the barrel down with the same hand till it (the barrel) is perpendicular, pointing to the ground. But whatever the mechanism, when the revolver



TWO SYSTEMS OF EJECTING (Smith & Wesson)

is open for loading, the barrel should be pointing downwards, yet in line for the target.

If a cartridge projects too much, remove it, as it is dangerous and may explode prematurely from friction against the breech of the revolver. In loading, of course have the revolver at half-, not full-cock. Close the revolver by elevating the breech with the right hand, not by raising the barrel with the left, as in the latter case the cartridges may drop out. This rule applies also to the hand-ejecting revolvers; the two types of action are here illustrated. See that the snap, or other fastening, is properly closed. If your shot goes wide of the bull, be sure, before you alter your aim for the next shot, whether it is not your "squeeze-off" which is wrong.

A practised shot can correct the shooting of his revolver by "aiming off" enough to rectify any error in sights. But the beginner had better not attempt this: he will find enough to do in trying to hold straight under the bull.

Do not mind if your score does not "count" much; those who do not understand revolver-shooting judge the goodness of a score by how much it counts, or by how many shots are in or near the bull's-eye. In reality, it is the group which constitutes a good score. One score may consist of the highest possible,—forty-two points (all six shots bull's-eyes),—and another may only count twelve points; and yet the latter may be far the better "shoot."

I will explain: In the first case, the shots may be "all over" the bull, "nicking" the edges; they would require, therefore, a circle of more than four inches (on the target you are at present shooting at) to cover them. The other score may consist of all six bullet-holes cutting into each other at an extreme edge of the target, but making a group which could be covered with a postage-stamp. The first "shoot" is a wild, bad score for ten yards' range at a four-inch bull, although it counts the highest possible in conventional scoring. The other is a mag-

nificent shoot, that anyone might be proud of; the fact of its being up in the corner merely showing that the sights were wrong, not the shooter's "holding." A few touches of the file, or knocking over the hind sight, will put this error right. Never mind, therefore, about scoring many points; merely shoot for group. You will gradually find your groups getting smaller and smaller as you improve; it is then merely a matter of filing to get good scoring.

As your four-inch bull's-eye is too large for real shooting at ten yards, you must remember that the sighting of the revolver should put the bullets one inch only into this size bull at "VI. o'clock," not into the middle of it. The reason is that, practically, the trajectory of a revolver is the same at twenty as at ten yards; and as the English regulation bull at twenty yards is two inches, you want the twenty-yards sighted revolver to put the shots into the centre of the two-inch bull when you aim at the bottom edge. In other words, you want it to shoot an inch higher than your aim at that distance. Therefore, if with your four-inch bull, aiming at the bottom edge, you go into the bull one inch up, it means a central bull's-eye shot on a two-inch bull. The reason I recommend aiming at the bottom of the bull's-eye instead of at the middle of it is that if you try to put a black bead in the middle of a black bull's-eye, you cannot see either properly; if you whiten the bead of the fore sight, then you cannot see it clearly against the white of the target in "coming up" to the bull. Nobody can hold absolutely steady on the bull for more than a fraction of a second; you have to "come up" from below and "squeeze off" as you get your sights aligned.

For real shooting—I mean at game, or in self-defence, or war—a white sight is best, as it shows more clearly against the objects most likely to be met with. It is for this reason that I think white targets a mistake for practical revolver practice.

If you want to learn revolver shooting for practical purposes only, and do not desire to compete for prizes, have a black target with a white bull's-eye for the foregoing lessons. Use a white front-sight, and as soon as you become moderately proficient, take to practising at moving, disappearing, rapid-firing, traversing, advancing, and retiring targets, directions for which I give under their proper heads in my Bisley chapters. Take care, however, instead of Bisley targets, to have black targets with white bull's-eyes, and use a white front-sight.

In all your shooting take a full sight in a widely open "U," so that you see daylight all round the front sight. This is the only way to get quick aim in all lights. A finer sight may do for target-potting in bright sunlight, in deliberate shooting at a stationary target, but it is useless for practical purposes. Unless you want to be a winner of revolver prizes, do very little shooting at stationary targets.

It is best to have your cleaning appliances on the table, or otherwise handy, when shooting, and every now and again to have a look through the barrel and a wipeout; you might otherwise be inclined to attribute to bad shooting what may be caused by leading or hard fouling in the barrel. I have a little cupboard under my table with a lock and key, in which I keep my cleaning apparatus, cartridges, etc. (but *not* the revolver), to save the trouble of carrying them to the range.

Always clean a revolver as soon after shooting as possible, and clean very thoroughly.

A revolver first shows signs of wear at the breech end of the barrel; it looks there as though rats had been gnawing it. At first, I have a fancy that this makes the revolver shoot "sweeter," but when this gets too bad, it affects its accuracy for target work. For real work, I prefer a revolver when it is half worn out, as everything then works smoothly and there is less danger of jambing. Rust in the rifling may entirely spoil accuracy, as, if you work it off, the bore gets enlarged and the bullets "strip." I never like to compete with a perfectly new revolver; all revolvers have their peculiarities, and it is necessary to get used to one, to "break it in," before trusting it to obey one's slightest hint.

Details for target-shooting, in competition, at a fifty-yards stationary target, I treat of in the proper place in the Bisley chapters. I do not see much use in practising at the regulation four-inch bull at fifty yards for improving one's shooting for practical purposes. The bull is too small for the accuracy of the revolver and for sighting on, and causes one to get slow and "poking."

When the present Bisley targets were designed (I was one of the committee), it was decided to have a two-inch bull at twenty yards. It will be noticed that I have since modified my opinion and that I now think it ought to be smaller for a twenty-yards stationary target; but I consider, nevertheless, that it is about right for moving targets. I then suggested five inches as right for the bull at fifty yards. It was, however, decided to make it four inches, which I thought then, and still think, much too small.

If two inches is right for twenty yards, five inches is the rule-of-three proportion for fifty yards. The barrel of the revolver is so short, and the sights are so close together, that the four-inch bull is too small for the "natural error" of holding of even the best shot.

For practice at fifty yards and over for practical purposes, you should have a white bull on a black ground, six or seven inches in diameter at fifty yards, and a foot diameter at one hundred yards. Use the same big, coarse sights that you use at the shorter range, and aim high or low, according to distance, instead of raising the hind sight or using different revolvers sighted for special distances.

At Bisley, owing to the small bull and great accuracy required, very minute front-sights have to be used. But I am talking of practical shooting; and at fifty yards and over the revolver would only be used to hit something at least as big as a deer.

At one hundred yards one ought to get into, or close to, a twelve-inch bull. Shooting, of a sort, in the standing position has been done up to four hundred yards with a heavy-charge revolver; but at more than a hundred yards one cannot depend on much accuracy and can only use the revolver for "browning." I have shot one hundred and ten yards at the "running deer" at Bisley with the revolver, but it is too far to do much good. At fifty yards at the "deer," one can do really good shooting and get three shots into it at one of its runs. Fifty yards I consider a good distance at which to make sure of a crossing horse, galloping, and one hundred yards a standing one.

At Bisley, and in fact at all regular competitions, the revolver must be held in only one hand; but for practical shooting at long range, the revolver can be held steadier by some people by using both hands, the hand which does not hold the stock being rested against a tree, post, or other rest, and clasping the barrel of the revolver, much as a telescope is held to steady it. The left hand also may clasp the wrist of the right arm, or vice versa. Another way is to clasp the shooting arm with the other hand and rest the revolver below the biceps muscles; but a heavily charged revolver is apt in this position to strike the face.

Lying on the back and resting the revolver alongside of one of your knees, the legs being crossed, is a very steady position; and sitting down with the arms folded, and shooting off one arm is also steady.

Never leave a revolver, loaded or unloaded, where anyone can touch it. Keep it locked up, unless actually in your own possession.

One of my ornamental revolvers, already figured, used to lie as a decoration on the writing-table in my Bisley hut. Of course it was unloaded, and there were no cartridges near. Some visitors dropped in, one by one, to lunch. First came an elderly lady. She sat down near the table; her eye fell upon the revolver. She instantly snatched it up with a laugh, and pointed it at me with, "I'll shoot you." I made her put it down, and was explaining to her how injudicious it was to point a revolver at anyone, how it might have been loaded, etc., when in came a parson. He sat down and

began talking pleasantly. Presently his eye caught sight of the revolver. Grabbing it, he shouted: "Now I'll shoot you," and pointed it at me, roaring with laughter. I locked up that revolver.

It is sometimes useful to be able to shoot with the left hand; as, for instance, if the right hand is disabled, the right arm held, etc., and for an officer with a sword in his right hand. If the novice has resolution enough to divide his practising, from the beginning, between both hands, he will be able to shoot nearly as well with his "left" hand as with his right. I have put quotation marks round "left" as I mean by this the hand not usually employed; a left-handed man's right hand being in this sense his "left."

I have also noticed that a left-handed man can shoot more evenly with both hands; that is to say, he is not much better or worse with either hand, not being so helpless with his right hand as a normally handed man is with his left. In all the directions for shooting, for left-handed work merely change "right leg" to "left leg"; "right arm" to "left arm," etc.



CHAPTER IX

REVOLVER CLUBS

HERE are several good revol-

ver clubs in England. Two of the principal are the North London Rifle Club, which shoots once a week at Ilford, Essex, during the summer, having competitions, a championship, etc., particulars of which can be

obtained by writing to Mr. Walter C. Luff, the Honorary Secretary, 11, Haymarket, London, S. W.; and the South London Rifle Club, which shoots weekly at Staines, Middlesex, during the season, under similar conditions, and the Honorary Secretary of which is Mr. D. Reid, 114 Oakfield Road, Penge, S. E.

In Paris, the Pistol Club, "Le Pistolet," 10, Rue Blache, shoots its competitions under very practical conditions in rapid firing, etc. The President is Comte Clary.

There are also in England several volunteer regimental revolver clubs; and it is not difficult (as far as expense goes) to get up local revolver clubs either for outdoor or indoor shooting.

The Councils, Committees, and Revolver Rules of the three clubs above-named are as follows:

NORTH LONDON RIFLE CLUB

President—Field-Marshal Viscount Wolseley, K.P., G.C.B., G.C. M.G., Com.-in-Chief.

Vice-Presidents—Lt.-Col. A. W. Bentley, V.D., 3rd Mx. V.R.C.; Major J. H. Cowan, R.E.; Gen. Sir G. W. Higginson, K.C.B.; Capt. J. Dutton Hunt, D.A.A.G., Hythe; Major Sir Ralph H. Knox, K.C.B., V.D., late 2nd South Middx.; Lt.-Col. R. M. McKerrell, V.D., J.P., 1st V.B. Royal Scots Fus.; Maj.-Gen. Lord Methuen, C.B., C.M.G.; Mr. Gus Rosenthal, Hon. Sec. 1884 to 1890; Major Walter Shoolbred, V.D., late Queen's Westr. V.R.C.; Mr. Henry Smith, Founder of the Club; Maj.-Gen. H. Trotter, Commanding Home District; Major Earl Waldegrave, V.D., L.R.B.; Major C. B. Waller, late Vic. and St. George's; Col. Sir W. H. Walrond, Bart., M.P.; Col. Lord Wantage, V.C., K.C.B.; Mr. Walter Winans.

Committee—Col. H. Roberts, V.D., Comdg. London Irish V.R.C. (Chairman); Mr. W. J. M. Burton, L.R.B., Hon. Sec. 1892 to 1896; Mr. A. W. Carter, 3rd Middx. V.A.; Lt. H. J. Curley, 15th Middx. V.R.C.; Maj. W. Evans, H.A.C.; Capt. J. Howard, 3rd East Surrey; Mr. C. R. Howell, 2nd V.B. East Surrey; Mr. B. Joslin, Finsbury Rifles; Mr. J. Mellings, late Queen's Westr.; Mr. J. Macdonald, London Scottish; Mr. S. A. Pixley, Vic. and St. George's; Lt. P. W. Richardson, 2nd V.B. Northumberland Fus.; Mr. W. Treadwell, late Queen's Westr.

Hon. Auditor-Mr. E. Wells, late L.R.B.

Hon. Treasurer-Major Harry Bateman (S.M.), T.H.R.E.V.

Hon. Secretary-Mr. Walter C. Luff, L.R.B., 11, Haymarket, S.W.

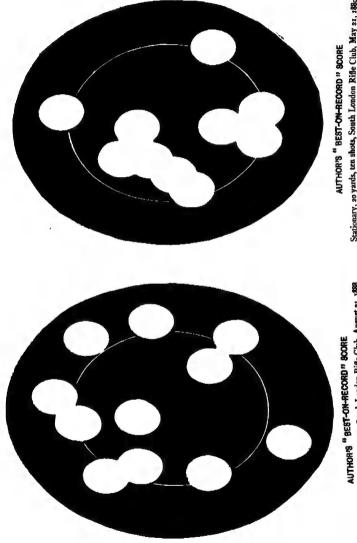
REVOLVER SHOOTING

Revolver shooting will be conducted at the special butt, and will be open to all members.

BY-LAWS AND CONDITIONS

(For the convenience of members who do not possess a weapon, a Colt and a Webley revolver are supplied at the firing-point.)

Members who have entered for the revolver championship (entrance fee, 5s.) may claim precedence at the firing-point, and similarly members who have entered in spoon competition may claim precedence of those who wish to practise only.



Stationary, 20 yards, ten shots, South London Rifle Club, May 21, 1889. .45 Colt Cavalry Revolver, Military sights, Eley ammunition. AUTHOR'S " BEST-ON-RECORD " SCORE (Full size.)

E

Stationary, 20 yards, eleven shots, South London Rifle Club, August 21, 1888 44 Smith & Wesson Revolver, U. M. C. gallery ammunition.

(Full size.)

WEAPON AND AMMUNITION

1.—The revolver competitions shall be open to only one class of revolver.

2.—Revolvers admissible to the competitions shall be such as are

suitable for military purposes.

3.—The description of revolvers and ammunition admissible to competitions shall be as follows:

Revolvers :

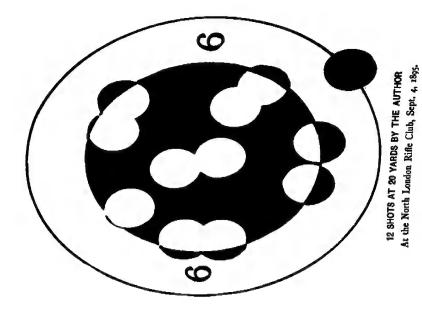
- (a) Weight-Maximum, 2 lbs. 10 ozs.
- (b) Barrel-Maximum length, 71 ins.
- (c) Calibre—Minimum diameter of bore such as will carry .44 ammunition.
- (d) Pull of trigger-Minimum, 4 lbs.
- (c) Fore sight—To be incapable of vertical or lateral adjustment. The barleycorn may be fixed to the fore-sight block by means of a screw or a rivet, the intention being to prevent the fore sight being moved or adjusted during the practice. The bead sight is allowed, but the "bead" must not be less than .08 in. in diameter, and .4 in. in length, nor must it be longer than any other portion of the sight; the narrowest part of the neck must not be less than half the diameter of the "bead," and generally to be in the opinion of the committee of sufficient solidity and strength to withstand rough usage.
- (f) Back sight—To be without screw adjustment and of some simple pattern of sufficient solidity and strength to withstand rough usage; it may consist of a sliding bar, or of leaves affixed to the barrel by hinges, or of interchangeable bars fitted into a slot, and it may be a plain open v, or open half-circle or section of a circle, or of buckhorn pattern, or a plain bar; the interchangeable bars fitting into a slot may be adjusted with the aid of a hammer, but such interchange of bars and such adjustment of bar, with or without the aid of a hammer, shall not be permitted at the firing-point.

Ammunition :

As issued at the ranges, but members may bring and use their own, provided it conforms to the following conditions, viz.:

- (a) Charge of powder—Minimum, 13 grains of black, or its equivalent in smokeless powder.
- (b) Bullet-Minimum weight, 225 grains.
- (c) Case—Minimum weight, 52 grains.

No other ammunition is allowed.





MODE OF FIRING

"Single practice" (that is, cocking the trigger before each shot), or "continuous practice" (that is, without cocking the trigger), at the option of the competitor.

In case of any missires, the competitor will continue to fire the remaining chambers, and afterwards reload as many chambers as may be necessary to complete his firing.

POSITION

Standing, but no rest of any kind, natural or artificial, will be allowed. Nor will the competitor be permitted to support himself on any part of the gallery or table from which the firing takes place. The whole of the arm with which the firing is carried out must be clear of the body.

TARGETS

As for N.R.A. Bisley, 1898.

REGULATIONS

In addition to the ordinary by-laws and conditions, as far as the same are applicable to revolver shooting, the following regulations will be observed:

- 1. No revolver shall be loaded until the target is ready, and the competitor has taken his place at the firing-point.
- 2. The competitor may load his own revolver, keeping the muzzle pointed towards the ground or towards the target, unless the executive officer, or his deputy, or member of the committee in charge shall give orders to the contrary, in which case it shall be loaded for the competitor by some competent person.
- 3. Whenever a competition shall be suspended for the examination of the target, or other cause, the register-keeper shall give the order "Cease fire"; the revolver shall be at once placed on the table, and shall not be touched by any person until the word "All clear" is given.
- 4. All questions shall be settled by the executive officer or other person in charge, subject to reference to the committee if demanded by the competitor.
- 5. All doubtful shots shall be decided by butting a bullet which has passed through the barrel of a revolver of the same calibre into the bullet-hole, and if, on examination with a magnifying-glass, the edge of the bullet is found to cut the line, the higher value shall be attributed to the shot.

- 6. Any members infringing any of the above conditions, or in any way disregarding the instructions of the executive officer, or indulging in any dangerous practice, shall be at once suspended from all further practice or competition by the executive officer, his deputy, or member of the committee in charge, and shall not fire another shot on the range until he has obtained the sanction of the committee.
- 7. Any member may enter in the revolver competitions as often as he pleases, subject to the conditions thereof and to these Regulations.
- 8. Practice on the revolver range is allowed under the prescribed conditions.
- 9. No member shall compete or practise twice in succession while a member shooting in competition is waiting to fire.
- 10. The committee reserve the right to alter or add to these Regulations.

REVOLVER COMPETITIONS

SERIES

FIRST SERIES—Six shots at a fixed target at 20 yards.

SECOND SERIES—Six shots at a fixed target at 20 yards, viz., first three shots with the right hand, and then three shots with the left hand.

THIRD SERIES—Six shots at a disappearing target at 20 yards—interval three seconds.

FOURTH SERIES—Six shots at a fixed target at 50 yards.

Time allowed for each of Series I., II., and IV., three minutes.

N.B.—If two members shoot together by agreement, the time allowance will be six minutes for the pair.

CLASSIFICATION

In the spoon competition members will be divided into three classes, and in each class one spoon will be given for every eight entries.

AMMUNITION

Ammunition loaded with black or smokeless powder, to accord with the foregoing regulations, may be obtained on the ranges by purchase, at the rate of 3d. per six rounds for black, and 4d. for smokeless powder.

ENTRY FOR SPOONS

Unlimited entries allowed at an entry fee of 1s. 1d. for the 20yards series, and 1s. 2d. for the 50-yards series, including a target but exclusive of ammunition.

RE-ENTRY

Members in Classes III. and II. may also enter in the higher class or classes, but can only fire them simultaneously with or after competing in their own class, as in rifle competitions. Only the best score made in their own class will count for the championship and aggregate prizes.

PENALTIES

Winners will be penalised one point for each spoon won, but not more than six points altogether, in each class or series.

PRACTICE

Practice tickets will be issued at a uniform price of 4d. each for either 20 yards or 50 yards, exclusive of ammunition. Unlimited practice allowed.

REVOLVER CHAMPIONSHIP

Entrance Fee 5s.

The details of the best score made by each competitor in each spoon competition, which may be good for the championship, shall be written in ink or indelible pencil, on the face of the target itself, and signed by the competitor and the register-keeper; and the targets shall be preserved by the secretary for verifying the scores for the championship.

CONDITIONS

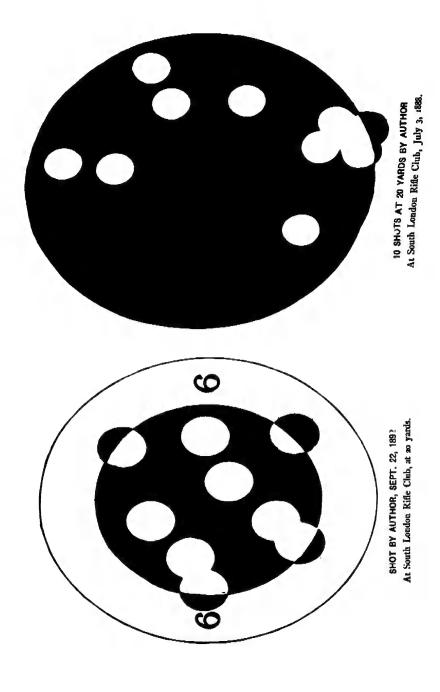
The championship will be decided by the aggregate of six scores in Series I., one score in Series II., one score in Series III., and of two scores in Series IV., made on separate days.

FIRST PRIZE—Gold championship jewel.
SECOND PRIZE—Silver championship jewel.
THIRD PRIZE—Bronze championship jewel.
The above are open to all members.
N.B.—A member can take only one prize.

TIES

Ties for the championship jewels will be decided by a special shoulder-to-shoulder shoot of 30 shots in Series I. If still a tie, by single shots until decided.

Ties for the extra prizes will be settled by the addition of the next best score, and so on, until decided.



HANDICAP TOURNAMENTS

If sufficient entries are received, there will be two handicap tournaments—one in the summer, and one in the autumn, commencing on dates to be announced.

Entrance Fee 5s. each

N.B.—In all tournaments the entrance fees will be returned in full as prizes.

SOUTH LONDON RIFLE CLUB

RULES, By-Laws, PROGRAMME, AND CALENDAR FOR REVOLVER SHOOTING

Club House on the Range at Runemede.

Council—Lt.-Col. F. W. Frigout, V.D.; Mr. G. E. Fulton, G.M., G.C., Queen's Westminster; Lieut. J. May, 3rd Bn. Gren. Gds.; Capt. J. Howard, 3rd E. Surrey; Mr. E. Howe, 1st V.B. Berks. Regt.; Mr. C. Malschinger, 3rd Middx. Art.; Mr. F. W. Jeffs, 1st V.B. Beds. Regt.; Mr. W. H. Trask, H.A.C.; Mr. M. Blood, M.A.; Mr. Wiggs; Mr. D. Reid.

Honorary Treasurer-Lt.-Col. F. W. Frigout, V.D., Vice-President.

Auditor-Mr. Stewart Bogle, A.C.A.

Honorary Secretary-R. P. Mortlock, 4th V.B. (Queen's) R. West Surrey Regt.

Executive Officer-Sergeant-Major Walker, Runemede Ranges, Runemede, Staines.

Bankers-London and South-Western Bank, Fenchurch Street, E.C.

Opticians-Messrs. W. Gregory & Co., 51, Strand, W.C.

Armourer-Armourer-Sergeant Fulton, Runemede, Staines.

All communications to be addressed to the Honorary Secretary, Lieut. R. P. Mortlock, Inglenook, Duke's Ave., Chiswick, W.

BY-LAWS AND CONDITIONS AS TO REVOLVER SHOOTING

Members of the club will be divided into two classes, A and B.

The revolver targets will be open for competition and practice as per calendar.

WEAPON

The revolver and ammunition shall be in accordance with Bisley regulations, with the exception that the fore sight of the revolver may be regulated by a screw.

Any weapon and any cartridge, including "gallery ammunition," may be used in practice, or by lady members of the club in competition.

Distances-20 and 50 yards.

MODE OF FIRING

"Single practice" (that is, cocking the trigger before each shot), or "continuous practice" (that is, without cocking the trigger), at the option of the competitor.

No competitor shall take more than ten minutes for his six rounds from the word "commence" by the executive officer, unless in case of accident or unavoidable delay.

POSITION

Standing, but no rest of any kind, natural or artificial, will be allowed. Nor will the competitor be permitted to support himself on any part of the gallery or table from which the firing takes place. The whole of the arm with which the firing is carried out must be clear of the body.

TARGETS

As for the revolver prizes at Bisley, viz., a circular disc 12 inches in diameter, corners not to count.

Bull's-eye, 2 inches diameter, scoring 7 points. Remainder of target divided into five rings, scoring respectively 6, 5, 4, 3, and 2 points.

ENTRIES

Entrance fee, one shilling, including target.

FIRST SERIES—Six shots at a fixed target at 20 yards, right hand.
SECOND SERIES—Six shots at a fixed target at 20 yards with left

hand.
Third Series—At a fixed target at 50 yards.

PRIZES

One spoon will be given for every ten entries, but no competitor can take more than one prize in each class in each series on the same day.

The entries for spoons will be unlimited, but only the selected score of the first three targets fired in each series in each day shall count towards the championship.

A spoon is guaranteed in each class in Series 1 and 2 each day, and also one in Series 3, but in this series there will only be one class

(A and B together). Members of Class B can also enter for Class A as well, for spoons only.

Winners will be penalised one point for each spoon won, but not more than six points altogether, in each series.

REVOLVER CHAMPIONSHIPS A AND B

The details of the best score made by each competitor in each spoon competition, which may be good for the championship, shall be written in ink or indelible pencil on the face of the target itself and signed by the competitor and the register-keeper; and the targets shall be preserved by the secretary for verifying the scores for the championship.

The gold, silver, and bronze jewels of the club, and money prizes—if funds will permit—will be awarded to the several competitors respectively making the highest combined aggregates in ten selected scores, viz., five in 1st, two in 2nd Series, and three in 3rd Series, but the winner of the gold jewel cannot take one of the money prizes. Only one score in 1st or 2nd Series, and one in 3rd Series, can count each day. Winners in order of merit shall have the right to select their prizes. Ties to be decided by firing twelve shots at 20 yards, and twelve shots at 50 yards; if still a tie, by single shots at 20 yards until decided. These prizes may be won in addition to jewels for rifle-shooting.

In Class A the scores to count for the championship will be confined to three at each range without previous practice.

PRACTICE

Practice will be allowed before and after spoon competitions when targets are not occupied by competitors. The charge, including target and ammunition, will be sixpence for six shots.

REGULATIONS

In addition to the ordinary by-laws and conditions, as far as the same are applicable to revolver shooting, the following regulations will be observed:

- 1. No revolver shall be loaded until the target is ready, and the competitor has taken his place at the firing-point.
- 2. The competitor may load his own revolver, keeping the muzzle pointed towards the ground or towards the target, unless the executive officer, or his deputy, or member of the council in charge shall give orders to the contrary, in which case it shall be loaded for the competitor by some competent person.

- 3. Whenever a competition shall be suspended for the examination of the target, or other cause, the register-keeper shall give the order "Cease fire"; the revolver shall be at once placed on the table, and shall not be touched by any person until the word "All clear" is given.
- 4. All questions shall be settled by the executive officer or other person in charge, subject to reference to the Council if demanded by the competitor.
- 5. All doubtful shots shall be decided by putting a bullet which has passed through the barrel of a revolver of the same calibre into the bullet-hole, and if, on examination with a magnifying-glass, the edge of the bullet is found to cut the line, the higher value shall be attributed to the shot.
- 6. Any member in any way infringing any of the above conditions, or in any way disregarding the instructions of the executive officer, or indulging in any dangerous practice, shall be at once suspended from all further practice or competition by the executive officer, his deputy, or member of the Council in charge, and shall not fire another shot on the range until he has obtained the sanction of the Council.
 - 7. The Council reserve the right to alter or add to these regulations.

LE PISTOLET

Présidents d'honneur—M. D. Mérillon, avocat général à la Cour de cassation, président de l'Union des Sociétés de tir de France; M. H. de Villeneuve, conseiller d'Etat. président de la Société d'encouragement de l'Escrime.

Vice-Président d'honneur—M. le lieutenant-colonel Dérué, directeur des divers sports des écoles de Paris.

BUREAU

Président-M. le comte Justinien Clary.

Vice-Présidents—M. le comte F. de l'Angle-Beaumanoir, président de la salle d'armes Mimiague-Rouleau; M. Maurice Faure, président de la Société de tir de Versailles.

Secrétaire Général-M. Joseph Labbé.

Secrétaire-M. Gustave Voulquin.

Trésorier-M. le capitaine Bizot, trésorier-adjoint des Sociétés d'encouragement de l'Escrime et de l'Épée de Paris.

LISTE DES MEMBRES DU COMITÉ

MM. Comte F. de l'Angle-Beaumanoir, Ernest Arthez, Comte Justinien Clary, Edgar de la Croix, Comte d'Elva, Maurice Faure,

Fernand Fouquet du Lusigneul, Comte Henri d'Havrincourt, Joseph Labbé, Gaston Legrand, Comte de Lyonne, Paul Manoury, Comte de Montgon, Paul Moreau, Roger Nivière, Pierre Perrier, Comte Potocki, Comte de Rochefort, Baron André de Schonen, Gustave Voulquin.

MEMBRES D'HONNEUR

M. A. Périvier, pour le patronage prêté au Tournoi du "Pistolet" par le Figaro; Walter Winans.

STATUTS

ARTICLE PREMIER.—Sous cetitre: 'Le Pistolet," il est fondé entre les adhérents aux présents statuts, une société ayant pour but de développer le goût du tir au pistolet et au revolver, d'organiser des poules en plein air.

ART. 2.—Tous les membres inscrits au 8 mai 1894 sont de droit membres fondateurs.

ART. 3.—Pour être reçu membre de la Société il faut être présenté par deux parrains. Le comité vote à sa plus prochaine réunion et reçoit à la majorité des voix.

ART. 4.—Les adhérents à la Société "Le Pistolet" éliront tous les ans 20 membres qui composeront le comité et seront rééligibles.

ART. 5.—I.e Comité choisira dans son sein: un Président; deux Vice-Présidents; un Secrétaire; un Secrétaire-adjoint; un Trésorier.

Le Comité élira de plus : deux Présidents et un Vice-Président d'honneur, lesquels pourront être choisis en dehors du comité et qui seront nommés à vie.

ART. 6.—Le Comité soumet tous les ans à l'approbation d'une assemblée générale, les comptes de l'année et fait un rapport sur la situation de la Société.

ART. 7.—La Société pourvoit à ses dépenses par le produit des cotisations et des dons qui pourront lui être accordés, et par le produit des poules.

ART. 8.—La cotisation est fixée à 10 francs par an, mais lors de son admission, chaque sociétaire doit verser un droit d'entrée fixé à 5 francs.

ART. 9.—Le Comité décidera des moments de l'année et des endroits où auront lieu les poules.

ART. 10.—Les tireurs prenant part aux poules désigneront deux juges et un directeur ; leurs décisions seront sans appel.

ART. 11.—A chaque poule sera attribuée une médaille au gagnant 1

¹ La médaille en bronze, a été gravée, frappée, par ordre de la Société "Le Pistolet," et est sa propriété. De plus, chaque tireur ayant été quatre fois 1et dans l'année, au

d'au moins cinq tireurs. S'il se trouve deux tireurs ex-æquo dans une poule, ils devront tirer ensemble pour obtenir la médaille destinée au gagnant; mais s'il y a plus de deux tireurs ayant le même nombre de points, la partie cessera et il n'y aura pas de gagnant.

ART. 12.—S'il y a deux poules, il y aura deux gagnants (deux médailles), etc.

ART. 13.—Si deux poules sont tirées en même temps, le même tircur ne peut se faire inscrire qu'à une seule.

ART. 14.—Une seule médaille est donnée par année à chaque gagnant. Dans le cas où le même tireur remporterait plusieurs poules dans la même année, les dates seront gravées successivement sur les médailles, et le nom du vainqueur de chaque poule inscrit sur un ableau d'honneur, au siège social.

ART. 15.—Dans le cas oû il y aurait des bénéfices, le quart sera constitué de droit en un fonds de réserve; les autres quarts pourront être employés en prix de différentes natures, en faveur des concours organisés par la Société d'Encouragement de l'Escrime et par la Société de l'Union des Sociétés de tir de France, ou au profit d'une œuvre de bienfaisance, selon le vœu du Comité.

ART. 16.—Dans le cas de dissolution, les fonds restant en caisse seront distribués selon le vœu de l'assemblée générale.

ART. 17.—Dans le cas de différend d'honneur entre les sociétaires, l'affaire devra être soumise à un jury de trois membres, pris parmi les membres du Comité, dont deux choisis par les intéressés et le troisième par les deux arbitres.

ART. 18.—Tout sociétaire qui n'aura pas notifié par écrit au Président avant le 20 décembre, son intention de ne plus faire partie de la Société, reste débiteur de sa cotisation pour l'année suivante.

DISPOSITIONS À INSÉRER DANS LES STATUTS DES SOCIÉTÉS EN

Les mineurs ne peuvent faire partie de la société, sans l'assentiment de leurs parents ou tuteurs.

Le Président fera connaître à l'autorité compétente tous les changements survenus dans la composition du bureau et, chaque année, lui adressera un compte-rendu sur la situation morale et financière de la société.

commandement et au visé, recevra une médaille d'argent supplémentaire, si ces places de premier ont été obtenues dans quatre réunions différentes.

Si un tireur est six fois premier dans six poules différentes, dans l'année, il aura droit à une médaille de vermeil supplémentaire.

6

Les discussions politiques et religieuses sont interdites dans les réunions. Nul ne peut assister aux réunions s'il n'a été reçu membre actif dans la forme prévue par les statuts.

La société devra se pourvoir d'une autorisation spéciale pour chaque fête organisée par ses soins, à laquelle seraient admises d'autrer personnes que les sociétaires.

Nul ne peut être élu membre du bureau s'il n'est français, majeu et ne jouit de ses droits civils, civiques, et politiques.

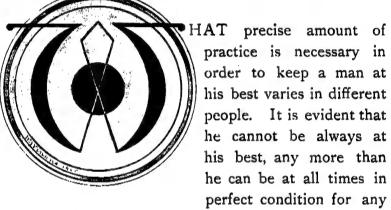
En cas de dissolution, la liquidation s'effectuera suivant les règles du droit commun.

En cas de modifications aux statuts, la Société devra demander de nouveau à la Présecture de Police l'autorisation prescrite par l'article 291 du Code Pénal.



CHAPTER X

PRACTICE AND TRAINING



other contest, athletic or otherwise, and in trying to do so, he would get "stale."

If you are going to shoot in any competition, do your preliminary work so that you come to your best at the time you need it, not before, as so many do. Some practise so that they are shooting their best some time prior to the event for which they are training, and then get "stale," and go off their shooting just when they want to shoot well. It is the better plan to be hardly at one's best when Bisley opens, but "coming on."

Get into as good general health as you can. Take a dose of something which acts upon the liver, if needful.

You cannot shoot well if your liver is not in perfect order. Shoot very little at first. Gradually do more and more every day; but slacken, or even stop, for a day or two if you find you are overdoing it. Stop smoking if you are a smoker; and be very abstemious in what you drink. Personally I have been a water drinker and a non-smoker all my life.

Some men, like myself, can never do as good work in practice as when entered for a hard-fought, uphill competition. They need the stimulus of competing to wake them up. I do not remember ever making so good a score in practice as I have in competition, except one single score at rapid-firing. With some, a hard tussle, instead of making them pull themselves together and bracing them up, has just the opposite effect; and they go all to pieces when "pushed" or in a tight place. I am afraid such men can never do any good at Bisley. To win, a man, like a trotting horse, should, as Ira Paine used to say, have a little "devil" in him. If a man is "soft" or too good-natured and easy-going, and of a "never-mind" disposition, he is no good in revolver competitions; or, if he is excitable or irascible, he will get shaking and upset himself just when he ought to keep cool. Some even brood over a coming match until their nerves are all unstrung when the struggle commences; others work themselves into a fever of excitement by exclamations of impatience each time a shot, or anything else, goes wrong.

When getting ready for Bisley, I begin some months before, shooting once each day and dismissing shooting from my mind for the rest of the day. I gradually work

it up to an hour and a half daily, during which time I fire from two hundred to four hundred shots a day. Three days before Bisley opens, I stop shooting, so as to come fresh to it and to prevent being stale; but some men would find it better to work right up to the day itself.

You ought not to shoot quite alone; I mean you ought to have an audience, and, if possible, a hostile (or feignedly hostile) one. It is advisable to get people to stand behind you and to make remarks about your shooting; laughing when you make a bad shot; telling each other anecdotes (this latter is very disconcerting; the former only makes you set your teeth and shoot all the better), and occasionally letting something drop with a bang, just at a critical moment of your shooting.

This will accustom you to shoot before spectators, and prevent you from being disconcerted by their presence. I do not mean to say you will be treated so at Bisley or the clubs, for the range officers at Bisley are very strict in making anyone who is not shooting stand well back and not talk loudly. But with the above training, you will not mind the slight buzz of conversation and movement behind you when competing—; and the sudden silence which denotes that you are about to fire a shot on which much depends will not worry you, as it would probably have done if you had been practising by yourself.

I think that anyone who is a really expert revolver shot can, for a few shots, shoot well at any time, when in normal health, without any practice. Once I did not have a revolver in my hand for nearly a year, and then made a highest possible score at my first attempt. But one cannot keep it up for any number of shots, the muscles

being out of training and the trigger finger and thumb getting sore and even cut.

In training, be careful not to establish a "raw" anywhere on your shooting hand; if you feel one coming, rest that hand till it is healed, and gradually you will get a "corn" where friction exists. If you shoot with a "raw," you will flinch and find it harder to shoot. I shot all through one Bisley meeting with my right wrist sprained; and at another with my right thumb partly out of joint. But I had to keep on shooting, as my championship depended on winning.

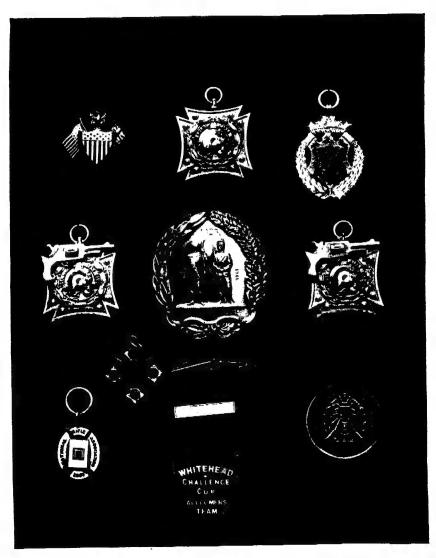
In reference to practice not being necessary to a seasoned shot, it is much better not to have practised at all before Bisley than to be stale. I remember one of the best shots at the "running deer" range telling me he never took a rifle in his hand except during the Wimbledon fortnight (we used in those days to have the N. R. A. at Wimbledon); but then he was always using a gun the rest of the year, and this was better practice than using a rifle at stationary targets, hence perhaps his invariable success in beating the target shots.

On a wet, windy, or otherwise unsuitable day, it is best to keep entirely away from the revolver range at Bisley. You will not have wasted time; you will, most likely, do better shooting the next time; and the others will all be "shot out" without anything to show for it.

Above all things, do not stand behind a good shot and watch him beating your best score; this is fatal to your nerves.

It is advisable to have a good leather case, with a lock, and your name on it, for your ammunition at Bisley. If you use the ammunition from the boxes in which the cartridges are sold you are very apt to be using someone else's cartridges by mistake—often bad ones. I recollect an orderly at one Bisley meeting collecting all the odd lots of revolver-cartridges, lying about the firing-points, in a box, and a competitor used them by mistake!





PRIZE BADGES

CHAPTER XI

GALLERY SHOOTING

this term I mean shooting under cover as distinct from shooting in the open air.

Some people say of gallery shooting, "This is not sport," just as those who have never tried "tame deer" and "drag" hunting say that *these* are not sport. One can, however, get a lot of fun out of both, under circumstances in which anything that people call "le-

gitimate" sport would be impossible.

Nobody can make good shooting with a revolver in a wind. When I say this, I am generally told: "You ought to be able to shoot in any weather." I do not mind shooting a match in a gale of wind if my adversary is also exposed to it, as that is good sport. But, I repeat, it is impossible, except by a fluke, to make a really good score in a wind, or to do any shooting which is useful as practice.

You may shoot hard all day long whenever a wind is blowing, and, instead of improving your shooting, it will entirely spoil your "form" and "timing." The reason is this: With a rifle, especially if you use the "back" position, you can "hold" steady in quite a strong wind, and the wind only lends interest and brings science into play in "allowing for wind." With the revolver, on the contrary, you have to stand up, the wind blows your arm and body about, you have only the one arm to steady the revolver, and that is being buffeted about at full stretch. How would you shoot if someone took hold of the sleeve of

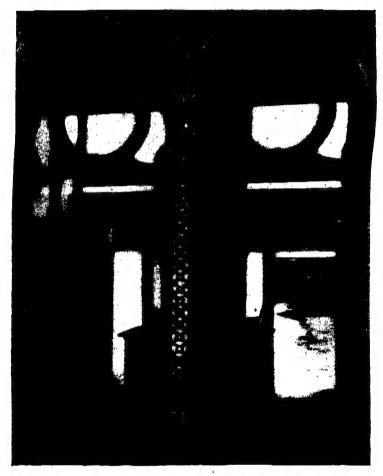


INTERIOR OF THE GASTINNE-RENNETTE GALLERY, PARIS

your shooting arm and kept twitching it as you tried to aim, and at the same time pushed you? This is what the wind practically does.

As it is impossible to shoot to any advantage in a wind, the summer months are the only ones when revolver target competitions are practicable in the open air. A revolver-shot cannot get any practice out of doors on

boisterous winter days, especially if he is busy all day and the light fails just at the time he is free. This is when the indoor gallery comes in useful.



INTERIOR OF THE GASTINNE-RENNETTE GALLERY, PARIS, SHOWING TARGETS

I do not know of any public revolver-shooting gallery in England at the present moment, now that the Swallow Street Gallery in London is no longer open; but in Paris, Gastinne-Rennette's, 39, Avenue d'Antin, and in New York, Conlin's, Broadway, are furnished with all the

latest modern improvements. There is at the Gastinne-Rennette Gallery an annual competition during March, April, and May, with prize pistols, revolvers, and medals. For ordinary practice, the revolver subscription is at the rate of 55f. per 500 shots, or 30f. per 250 shots.

A private gallery can easily be fitted up in the cellars of large country, or even town, houses. All that is needed is a gallery of a certain length-ten yards will suffice at a pinch, but mine is thirty-three yards, with the targets and butt (such as I describe in the chapter on Stage Shooting) at one end. The targets should be lighted from above, preferably by a skylight in the daytime, and by gas, lamp, or electric light at night. When artificial light is used, it should be screened, so that from the firing-point the targets are distinct, but the source of light invisible. At the firing-point it is difficult to get a satisfactory light. If this gallery is not made in a greenhouse, which, of course, would give ample light to sight by in the day, I think there is no use in trying to get the light to shine on your sights. If it is behind you, you stand in your own light. If enough above you to prevent this, the light only shines on the top edges of your sights, and is thus worse than useless. I find it best to have enough light behind you to enable you to load by, etc., and to trust to seeing the sights in a black silhouette against the target. You may, for this reason, have to alter your sights from the elevation which suits you out of doors.

You should have a ventilating shaft straight above the muzzle of your revolver, and, if possible, a fan to draw off the fumes and smoke; one worked by electricity or waterpower is best.

It is expedient to use only the lightest gallery ammunition, and it deadens the sound if you have the walls covered with some sort of material hung loosely. Boilerfelt is very good for the purpose. Also, if you shoot through a hole in a partition screen, it helps to deaden the sound.

I prefer a big-calibre revolver, as it gives a better chance to score; a shot which would be just out of the bull with a small bullet, may just cut the bull with a large ball. The bullet-hole is also more easily seen, but the bullet must be as light as possible, or you will have to use too heavy a charge of powder to propel it.

The self-registering targets, such as are used for miniature.22 calibre rifles, I do not find very satisfactory, those, at least, that I have tried; the larger size of the revolver bullet makes it liable to strike two compartments at the same time, giving you a double score, and the impact of the bullet is, moreover, too heavy for the mechanism. I prefer card targets.

On no account have targets that necessitate anyone's going down the range, or coming out from a mantlet, to change. There is sure to be an accident sooner or later. Have them made to draw up to the firing-point for examination and change, and never let anyone turn round with a revolver in his hand. In fact, observe all the rules as to table to fire from, etc., which I give in the chapter on Learning to Use the Revolver. All these rules apply equally to gallery shooting.

As the gallery is generally narrow, it will be difficult to have traversing targets, but you can have most of the other Bisley targets. Such a gallery will be an endless source of amusement in the winter evenings, after dinner; and the ladies can shoot as well as the men.

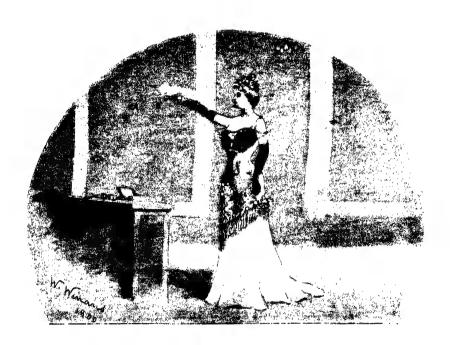
It is advisable to handicap the good shots, so as to give all an equal chance.

The Morris Tube Co. can fit up all details of such a range.

Gallery shooting is by far the most scientific style of revolver-shooting, if you use a very light load, fine sights, and hair trigger; therefore you can have smaller bull'seyes and subdivisions than the Bisley ones. The American and French targets are better subdivided for this purpose. Messrs. De La Rue make me special "ace of hearts" packs of cards for use as targets. For experimental work also, a gallery is much more reliable than shooting out-of-doors.

When shooting gallery ammunition in which the bullets are "seated" low down, look into the cartridges before putting them into the chambers, as a bullet may have worked itself up, which would cause a weak, low shot. Push the bullet down with a loading rod, or pencil, before you insert the cartridge into the chamber, if you find it shifted. Also, if, after firing a few shots with this ammunition, you, for any cause, stop and want to re-load the chambers which have been fired, it is as well to take out all the cartridges that have not been fired and examine them, as the jar of firing may have started some of the bullets.

If you can possibly get some of the French smokeless powder, as used at Gastinne-Rennette's gallery, this is much the best powder to use for this purpose, as it shoots evenly, makes no smoke, very little smell (and that not unpleasant), and shoots so "cleanly" that you can fire hundreds of shots without cleaning the pistol.



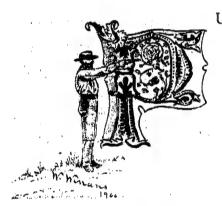


BISLEY PRIZE CERTIFICATE

CHAPTER XII

NATIONAL RIFLE ASSOCIATION MEETING AT BISLEY

THE REVOLVER COMPETITIONS



ULL of trigger is the principal difficulty in revolver competitions at Bisley. I think the Bisley regulation pull (four pounds, minimum) is too heavy for getting the best shooting out of a revolver. It means having a pull of at least four and a-half pounds, so

as to be sure that it does not get too light during the shooting, and it discourages many by unnecessarily increasing the difficulty of shooting, and necessitating a great deal of training to avoid jerking off the aim. A minimum of three pounds would, in my opinion, be a much better pull. A man accustomed to lugging at a heavy pull is also much more likely to "let off" by accident; whereas a man who is used to a light pull keeps his finger off the trigger till he means to shoot.

I also venture to think, although I know I am in the

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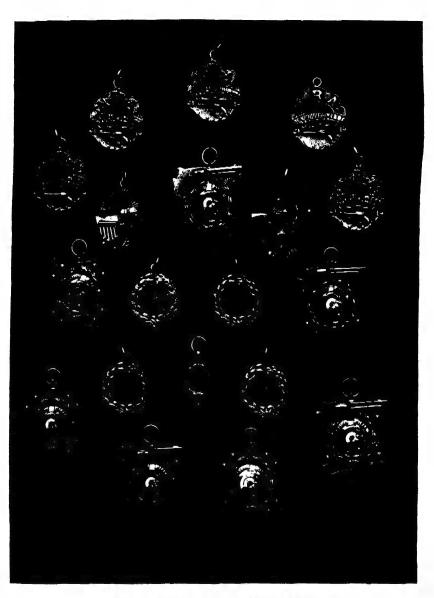
minority, that the National Rifle Association (and, in consequence, all the affiliated English revolver clubs) is mistaken in making rules excluding light charges, and in confining competitions to the use of "Military revolvers" only, their definition of "Military" excluding some revolvers and ammunition which are regulation in other countries. This deters many from taking up revolver-shooting, as it is not everyone who cares, or is physically able, to stand the "punishment" of a heavily charged large-bore revolver; and it does away with the niceties of accurate work in shooting, reducing these competitions - to borrow an expression from the boxing ring - to mere "slogging matches," and makes them a test of physical endurance rather than of practical skill. The light-charge "Any revolver" competitions correspond to the Match Rifle competitions, and are very useful also for experimental purposes.

On the Continent, on the other hand, in all competitions, even a weak, delicate man can shoot in comfort and can do really accurate work, as a light charge and triggerpull are there allowed. For duelling, a light charge is used; and a small calibre, with a charge giving very little recoil, is regulation in all armies but the English.

BISLEY TARGETS AND MARKING REVOLVER

Distance, 20 yards.—Target, circular, on a square card, subdivided as follows:

		eye 2 incl diameter				ounting		marks. marks.
	66	46	"	B 66	6.6	46	2	66
4½ 6½	44	66	66	1 "	44	44	2	66
0	44	44	44	11 "	44	44	2	66
7 I 2	66	66	45	ıå"	44	66	2	46
C	OTHET	s not to c	Ount	•				



SOME OF THE AUTHOR'S CHAMPIONSHIP BADGES

Distance, 50 yards.—Target, circular, on a square card, subdivided as follows:

Bull's-eye 4 inches in diameter, counting 7 marks.

6 ii	nches	diameter	ring	ı iı	ach	wide	44	6 r	narks.
		66	**	$1\frac{1}{2}$	"	66	64	5	44
13		44	**	2	**	4.6	66	4	**
18	6.0	46	4.6	$2\frac{1}{2}$	64	66	66	3	41
24	**	66	44	3		66	66	2	**

Corners not to count.



CHAPTER XIII

BISLEY (Continued)

TWENTY-YARDS STATIONARY TARGET. (KNOWN AS "THE

SHORT RANGE SERIES")

OMPETITIONS at this range are more numerous than at any other. Pool shooting also takes place at this range.

I have already described how to stand and shoot at a stationary target. There are a few points to be observed, however, which

specially apply to this range when shooting at Bisley. Before competing at any one of the limited-entry competitions, it is well to be sure that you are shooting up to your proper form, as mistakes cannot be corrected after once commencing.

Personally, I think it best (if shooting every day or most of the ten days) not to enter in a limited-entry competition till after the first two days of the meeting, as one gets steadied down by then and grows more accustomed to the surroundings.

As sighting varies from day to day, and even from hour to hour, it may be as well to have a pool shoot for sighting purposes first; but I personally never do so, as I think it is a pity to chance wasting a good score in pool. The moment you have "found the spot," leave off pool; do not stop to finish a score.

I prefer doing my sighting on an "unlimited, entry" competition ticket, so that in case I make a "highest possible," that score is not wasted.

I have often had a man come to me to show me a "possible," and when I have congratulated him and asked him in what competition it was made, he has answered: "Oh, only pool; I have been getting my hand in, and am now going in for the limited entry." When I saw him later, and asked him how he had got on in the limited entry, he has said: "Gone all to pieces; I had shot myself out at pool." So, unless a man is "possible hunting," or a "gunmaker's shooter," and wants to have diagrams of easy "possibles" published in the papers, my advice is to leave pool alone and try to make "possibles" where they count as records and require nerve to make. Unfortunately, the general public does not differentiate between these two classes of "possibles," and thinks them equally meritorious.

The early morning, from 9 till II A.M., is the best time for shooting; and then, perhaps, late in the evening. One should watch for a good time when the light is favourable; often the wind will drop late in the evening, half an hour before "gunfire," after blowing hard all day.

There is often a good light after rain. Personally, I rather like shooting in the rain, and have made some of my best shots in it. The light is good; there is then no

glare on the target; and bullets make very big, ragged holes on a wet target; and sometimes a shot which would not cut the bull on a dry target may do so on a wet one, owing to its making a larger hole.* The Webley "Manstopping" bullets make very big, "clean" holes.

If you have a target with a doubtful shot, that is to say, one for which you think you are entitled to a higher count than the range officer gives you, do not touch it, or thrust anything (your finger or a pencil) into the hole to demonstrate that the shot cuts into the bull's-eye or the line you claim. If you push anything into the hole you will spoil its outline and destroy all evidence of the point at which the bullet had cut. In doubtful cases, the range officer puts a bullet of the same calibre (which has been pushed with a rod through a revolver barrel previously) into the hole, and examines it whilst in this position with a magnifying-glass.

Accept the range officer's decision as final; never "protest" a decision of his.

Look at the target through your glass and see that it has no bullet-holes in it before you begin to shoot; and refuse to shoot at a patched target, except at pool. A patch may fall off a shot made by a previous competitor and confuse your score, besides making the target indistinct and throwing doubt on a record score by you if you should happen to make one on such a target. Also see that the bull's-eye is black; some are badly printed, and the bull is grey and indistinct.

Shoot very slowly and deliberately. There is no hurry. The time limit of two minutes would be ample

^{*} At Bisley a bullet must cut the bull to count; at the clubs if it touches it scores a bull.

within which to fire twenty-four shots—and you have only to fire six.

If you are dissatisfied with your aim, or your arm is getting tired, or a gust of wind comes, put the revolver down without firing. Look down on the grass to rest your eyes, and wipe your hands; a little sawdust is a good thing to rub them with on hot days.

When it is gusty, putting up the revolver just as you think a lull is coming, instead of waiting for the lull, gives you a better chance of being "up" when the lull does



Fig. 1. Bullet and case before being fired. Fig. 2. Bullet after it has entered the flesh. Fig. 3. Section of bullet after expansion.

come, and you can then "snap" the shot before the next gust.

If you have to shoot in a very high wind—as in a match, or in shooting off a tie—it is best to "snap" your shots (see chapter on Rapid-Firing Series) and not try to hold against the wind.

If a shot strikes a little too high, or too low, or too much to either side, aim "off" the bull the next shot to correct it.

Do not keep altering the amount you see of your front sight if you hit too high or too low; you will never make a good score in that way. If you are out half an inch at "X o'clock," aim your next shot at half an inch off "V

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o'clock"; if you hit half an inch above the bull at "XII o'clock," aim half an inch below "VI o'clock" with your next shot; do not take a "coarser" sight. This is where a practical shot has the advantage over a mere "target shot."

If a shot is in the bull (I will asume you can easily see shots in, or partly in, the "white" at twenty yards; I can see them at fifty), and you are not sure of its exact locality, examine it with your glass.

If you are "holding" exceptionally steady, and have shot well into the bull, though not actually central, do not aim differently to try to get the actual centre with the next shot; as a rule, if you are anything more than half in the bull, it is better to let well alone and "hold" the same as before. I remember on one occasion I had five shots in one ragged hole at "V o'clock" in the bull on the sliding target; and for fear lest I should put my last shot through the same hole and have it counted as a miss, I tried to hit the bull at "IX o'clock" clear of that hole, and got just out of the bull.

If you have several bullets in one ragged hole, it is advisable, if there be time, to draw the range officer's attention to this before you fire the next shot, so that in case you go into the same hole or group again, he may record it and not think it a miss. If he watches the target whilst you shoot, through his glasses, he will see where your bullet goes, even if you do go into this group.

Do not lend anyone a revolver you care about, any more than you would a horse.

At the stationary targets, and at those only, it is advisable to use both hands in cocking. In cocking, if there is not a distinct click, or if the action feels "woolly" or soft, put it back at half-cock, and open the revolver and see what is the matter. Most likely a bit of fouling, or piece of metal from a cartridge or bullet, or a cartridge with too thick a head or protruding cap, is the cause.

When the revolver is at full-cock, take the cylinder between the forefinger and thumb of the left hand, still holding the stock in the right hand and keeping the muzzle towards the target, and gently try to revolve the cylinder towards the right. This, at least, is the normal direction, though some makes revolve to the left. You will, perhaps, once in a dozen times, find that it goes over an appreciable amount till it locks.

Any revolver, even the best, may sometimes not bring the cylinder round quite true to the barrel; and if it does not coincide, the shot will not be accurate, owing to the bullet not going into the barrel true, and thus getting a small shaving taken off its side. A bit of fouling, metal from cartridges or bullet, "proud cap," or thick cartridge-head may cause this. By attending to the cocking in the elaborate way I have indicated, this cause of inaccuracy is avoided. (This is very important in cases where a miss would be dangerous: as when shooting objects off someone's head, or those which are held in the hand or mouth, or for the last shot on which everything depends in a match or a record score.) Also, every time you open the revolver, look to see whether the caps have been hit absolutely true in the centre.

By my way of cocking, even if the revolver is not acting quite perfectly, the chambers ought to come true. If they do not, clean them very carefully. If, in spite of this,

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the caps are still hit on the side, it is useless to continue with that revolver until the maker has put it right.

Shoot with the smallest charge, lightest bullet, and largest calibre the rules allow, as it is easier to shoot with a small than with a "kicking" charge, and the bullet of larger calibre is more apt to cut into the bull. (This applies to all competitions at ranges not over twenty yards; beyond that distance, a big charge is more accurate. See chapter on Fifty-Yards Target.)

Smokeless powder will, of course, be the powder of the future; but I have not yet got such accuracy out of any smokeless, except the French, as I have with black. They give more "unaccountables." But for rapid firing, smokelessness and less recoil more than counterbalance the comparative want of regularity, even with the other makes.

I do not like too small a front sight. I think that one which, in aiming, looks about a quarter the diameter of the bull is best. The semicircular "U" of the hind sight should be wide enough to enable you to see all round the bead of the front sight.

In revolver shooting, the chief difficulty is in "holding" and "squeezing off" without disturbing your aim. There is no need to strain your eyes with a microscopic front sight when shooting at so large a bull as two inches at twenty yards.

Another fault of too fine a front sight is that it is liable to get bent, just enough to spoil your aim, yet not enough to be noticeable until too late. If you try to straighten it, the odds are that you break it off and then have to waste a day or more getting another fixed, which, most likely, does not suit when done.

The rules at Bisley as to sights vary from year to year. I have one revolver with a bead front sight on a very strong stalk which I was for several years allowed to use and win with as a military revolver; it was in subsequent years declared unmilitary and unfit for rough usage; and now it is again allowed to be used. The front sight already shown, which is a patent of my own, has never yet been objected to under any rule; and, personally, I would as soon use it as any bead sight, except for stage shooting, and indeed prefer it to a "bead" in a bad light or wind. There are also rules as to "no screw adjustment"; "sights must be fixed," etc.

I always have my Bisley sights made solid with the revolver, without any screws, and have some made to shoot higher, others lower, each on a separate revolver. If I find that the light, or my shooting, does not suit one sort of sight, I take another revolver. I have some fifteen revolvers prepared in this way.

The permission to have a hind sight adjustable by being hammered to one side is worse than useless. The sight works loose, gets knocked askew, and when you begin shooting you find it is constantly shifting and spoiling your shooting. I do not call it by any means a practical military sight. If you can only manage one revolver for Bisley, have it with my front sight, sighted to your normal or average shooting, at twenty or fifty yards, to whichever you decide to confine yourself, and both back and front sights made fixtures.

I take it for granted that you have your revolvers, sights, and ammunition all in perfect order before you come to Bisley. This may seem an unnecessary remark,

but I have noticed the average revolver-shot come more or less unprepared. He starts pool-shooting, to see if the new sights he ordered suit him, "as I have not tried it before"; wants to buy ammunition on the spot, or uses that provided by the Association; or even wants to hire, or borrow, a revolver!

The record twelve-shot score at this range is mine, of eighty-three out of a possible eighty-four. For six shots, almost everyone who can shoot at all has made more or less "possibles." I have some twenty-four, made in competitions, but I do not trouble to make "possibles" at pool.

In my opinion, if it is thought advisable to have a twenty-yards stationary target, the present one is too easy; the bull ought either to be reduced to one inch, or a one-inch ring "carton" made in the two-inch bull, counting eight points, if a one-inch bull is deemed too small to aim at.

Wear nailed boots, or those with corrugated rubber soles, so as not to slip. The rubber, however, is rather apt to get cut in standing on spent cartridges. A broad-brimmed cowboy hat, or sombrero, is the best headgear, except in a wind, as it keeps the glare off your eyes. I took to using these years ago, and now I see them in use by nearly all shooting men, as well as in the English army, though (unlike in the U. S. army) often rendered less serviceable by having the brim looped up on one side. I keep some of various widths of brim, and use the one most suitable for the occasion. Also a Swedish leather jacket is very good when it gets chilly, as it is very light and does not hamper your right arm as a

heavier coat would do. If you do not possess one, an extra waistcoat will serve, as this will leave your arm free. An overcoat or mackintosh hampers your right arm. You are freer in a flannel shirt with turn-down collar, loose round the wrists, and no braces. A silk hand-kerchief tied loosely round the neck, cowboy fashion, keeps the sun off the nape of your neck.



CHAPTER XIV

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

DISAPPEARING TARGET (KNOWN AS "THE BOBBER")



HIS target, which has the two-inch bull's-eye, like the twenty-yards stationary target, appears and disappears at intervals of three seconds—three seconds in sight and three seconds invisible—and is shot at from a distance of twenty yards.

The rules forbid the re-

volver being raised from the firing-table before the target appears; and it must be lowered to the table after each shot.

Shooting in this competition is the groundwork of all the competitions other than at stationary targets; so I shall go very fully into the way of becoming proficient at this, as the other competitions should then come comparatively easy.

In order to do the best possible work, you ought for practice to have an exact copy of the disappearing mechanism used at Bisley; and also (and this is very important), the range should orientate as at Bisley and should have the background of the same colour.

At Bisley, at one time in the afternoon the shooting is against the setting sun; at which time the wise shot takes a rest and lets others waste their entries, as it is impossible to make good shooting under these circumstances. By having the points of the compass the same as at Bisley, you will soon find out which sort of light suits you best, and at what hour of the day it comes. Personally, I find the light from 9 to about 11 A.M. (during which time it is more or less over one's left shoulder) the best for shooting in July. As the sun comes round, you will find that the point to aim at varies gradually as the light strikes the front sight more or less on the side.

As the sights may not, by the rules, be moved laterally, it is as well to have several revolvers for each competition, with the sights set to make the revolver shoot more or less to the right or left; and also some sighted lower than others, to use as the light varies.

Variations in elevation, owing to varying intensities of sunlight, can also be remedied by having several pairs of spectacles with plain glass (unless, of course, you need optical glasses to see clearly with), of different tints of smoke colour. You can then, when you find a certain strength of light best for your shooting, keep to this strength artificially, whatever the real light may be, putting on glasses of a shade sufficient to modify the light as required. The glasses should have round, and not oval, frames, and these should be a good two inches in diameter, so that the rims do not interfere with your

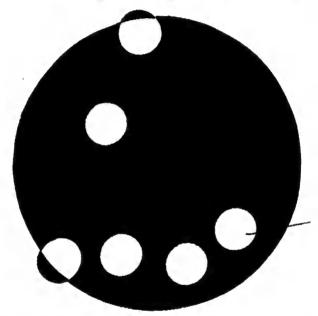
view. Large round goggles, with plain window-glass, are a great protection against particles of burnt powder, especially in a head wind; and after a hard morning's shooting. the surface of the glass will be found covered with adhesive black spots. It is as well to have one pair of plain white glass (i. e., ordinary window-glass), and to wear either these or one of the smoked pairs whenever shooting, or even looking on at shooting, as the powder blowing back constantly into the eyes irritates them; and a sudden dab in the eve may even spoil a score by making one flinch at a critical moment. I have known a man incapacitated from shooting for several days through getting his eyes inflamed from particles of powder and smoke blowing in his face in a head wind, and from the irritating fumes of the nitro-powders; and the look of many competitors' eyes towards the end of the shooting shows how it affects them. A solution of boracic acid and rosewater (of course you must get a chemist to dispense the right quantities) is a very good thing to bathe the eyes with during and after a hard day's shooting, and it makes the eyes feel very comfortable the next day.

Also, it is important to protect the ear-drums from the constant banging, else you get your ears "singing" and finally become more or less deaf. A revolver is worse than a rifle or gun in this respect, owing to the shortness of the barrel and the consequent proximity of the concussion to the ear. The left ear is more apt to suffer than the right, which is more sheltered by the arm, and a neighbour's shot, for which the ear is unprepared, affects it more than one's own. This is particularly noticeable if your neighbour stands slightly behind you.

Some use cotton-wool in the ears. I find it apt to mix with the natural wax in the ears, a small amount of the cotton wool remaining behind each time the wool is removed; and, what is more, it does not sufficiently deaden the sound. For practising in private, a pair of small down pillows tied over the ears deaden the sound best, but these cannot be worn in public. Messrs. Lynch, chemists, of Aldersgate Street, London, make a very good sounddeadener which I always use when shooting. It consists of a hollow rubber flesh-coloured plug, filled with sawdust. This reduces the sound of a revolver-shot to a slight thump, like the blow of a fist on a table, and is practically invisible when worn, much less conspicuous, at any rate, than white cotton-wool. It will also prevent your neighbour's shooting disturbing you. Men whose ears are very sensitive should take some precaution against cold when these sound-deadeners are removed. concussion of revolvers, bad at all times, is of course aggravated by the use of the heavy military ammunition obligatory at Bisley, as well as by the deafening echoes from the wood partition of the stall in which competitors have to shoot. It is said that keeping the mouth open moderates the concussion, but the remedy is surely worse than the disease.

The action of cocking, particularly in rapid firing, throws a great strain on the muscles of the thumb, and the tendon running over the second joint of the thumb is apt to be displaced if subjected to too much work without preparatory practice. The thumb and forefinger may be strengthened by the use of a small apparatus that will, on the principle of the old-fashioned well, lift a weight of a few

pounds, operated by the thumb and forefinger with the same action that would wind a keyless watch. The wrist and elbow are also apt to get sprained if got into work suddenly without previous training, but my way of holding these throws very little strain on the wrist. Personally, I have several walking-sticks of gradually increasing weight,



AUTHOR'S "BEST ON RECORD" SCORE. 20-YARDS DISAPPEARING TARGET
"Military" Target, Wimbledon, 1888; .45 Smith & Wesson Revolver, Eley's Ammunition,
(Full size.)

up to three pounds, which I carry for a few weeks before any important match. For some men, those more particularly with a tendency to varicose veins, even the long standing about may be bad, and care should be taken not to catch cold when shooting in a wind, or in the evening following a hot day.

To return to the target, if you cannot get a copy of the Bisley disappearing-target mechanism, the next best thing is to have the target hinge over and be brought up again by some mechanical means. If this is not practicable, a stationary target may be made to answer, as I shall presently show.

My reason for wanting the actual Bisley arrangement is because that comes up with a jerk (some of the men operating it are very jerky), and the target "wobbles" for a fraction of a second, both just as it gets upright and just before it disappears, and this is apt to disconcert anyone not used to it.

Next, get a metronome, with bell attachment. Set it to beat half-seconds (be very particular to get the time absolutely correct), and set the bell to ring at every sixth beat. You have now intervals of three seconds marked with a "ring" at the end of each. Count the beats to yourself when the metronome is working: "One, two, three, four, five, six"; "one, two, three," etc.

Get your man to work the lever which actuates the target (the lever in every case being a yard or two behind you, so that there is no danger of shooting the man or of burning his eyes with the side flash from the chambers of the revolver). Let him, at the stroke of the bell, bring up the target sharply, so that it comes with a bang, and lower it at the next ring in the same way, and keep it down till the next ring, then jerk it up, and so on; jerking it as roughly as the mechanism will allow.

If you have to practise on a stationary target, pretend to yourself that it disappears at each alternate ring of the metronome. The firing-point *must* be like the Bisley one; it will not do to stand with the revolver hanging at your side; it must rest on a ledge the same height as

at Bisley, or else your practice will be useless for Bisley, as quite a different way of working the muscles and resting them between shots is in use in the two styles of shooting, and it takes less time to "come up" from a ledge than when the arm is hanging by the side. Owing to the slope of the ground at Bisley, some of the ledges are higher than others; choose the one that suits you best, and have your practice ledge that height; and when shooting at Bisley, do so from the ledge you have previously chosen.

Stand squarely, well behind this ledge. You will only get disqualified if you get into the way of resting the lower part of your body against the ledge; or even if you stand close to it and your coat happens to hang in front; or if you happen to have a "corporation" some competitor may have you disqualified as resting against the ledge.

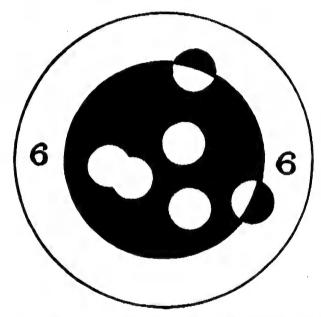
The position of the legs and body is as for the twentyyards stationary target, except that the rod which works the target is best kept between the feet, and these have to be a little wider apart. (N.B. If you are a short man, it is better to stand to one side of the rod.)

Stretch your arm out its full length, and, holding the revolver with the sights uppermost, rest the lower side of the barrel lightly against the ledge. The part of the barrel adjacent to the chamber is the part to rest on the ledge, as it is less likely to slip. There is a notch between the barrel and lower part of the frame of the revolver, and when this is resting on the edge of the table, and the arm is straight, then you are standing at the right distance from the table.

If you have to stretch too much or to lean forward,

move slightly closer until you are comfortable; if your arm is bent, move backward till it comes straight. (All this is done with an *empty* revolver.)

Now stand in this position, watching the target go up and down, and counting all the while, "one, two, three," etc., to yourself, till you get the rhythm of the



AUTHOR'S "BEST ON RECORD" SCORE. 20-YARDS DISAPPEARING TARGET
North London Rifle Club, May 29, 1895; .45 Smith & Wesson Revolver, U. M. C. Ammunition.
(Full size.)

thing. Keep your eyes all the time fixed on the bull's-eye when it is vertical to you; do not follow it down with your eyes, but keep a mental picture of it, while it is away, on the background. You will gradually be able to know exactly where it will be, and when it will be there, and you will then be able to aim at the imaginary spot; so that when the target appears the sights will not have to be shifted to the bull's-eye, but the bull's-eye will come to the sights.

Now, cock the revolver, of course using only your right thumb, and not shifting your left hand, body, or revolver in the slightest.

(If you cannot do this neatly, cock the revolver first, and then "set" yourself at the ledge.)

Now, at the word "one," slowly (i. c., without hurry or jerk) bring your arm up, quite straight, till the revolver is level with your eye, and you are looking through the sights.

If you have been following the above directions carefully, you will find you are aiming at the bottom edge of the bull's-eye, without having had to shift your hand or to align the sights; the sights and also the target have, in fact, "come up" to your eye, not your eye to them. speed with which you raise your arm should bring the sights touching the bottom edge of the bull at the word "two"; but it is better, at first, to be slower: as long as you get the sights touching the bull before it disappears, it will do-for the present. At the word "six," lower the revolver to the table, but keep your eyes on the imaginary spot at which the "bull" disappeared. Keep the revolver down while you count six, and then raise it as before. After a few minutes of this drill, begin to squeeze the trigger slightly while the revolver is resting against the ledge. With practice you will be able to regulate the squeeze so that it will require only half a pound more pressure to fire the revolver. Then as you lift the revolver, gradually tighten the squeeze, and keep gradually tightening it, never diminishing the pressure, but not increasing it if your aim is getting wrong, and beginning to increase it again as you correct your aim. If you are increasing

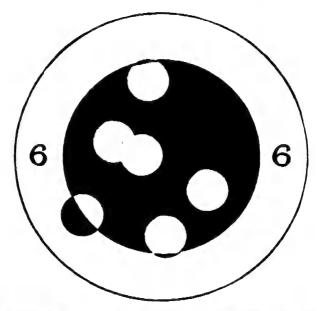
the squeeze properly, you will find, just as your aim is perfect, and a fraction of time before the word "six," the hammer will have fallen and you will not have jerked or moved off your aim.

The instant the hammer has fallen, cock quietly with your right thumb, and lower your revolver to the table as before. In all cocking, I mean it to be understood that it must be done with one movement of the right thumb, the finger well clear of the trigger so as not to break or wear the sear notch, and the left arm, left hand, and body not moved in any way, as already illustrated. After you have done this a few times, and have confidence, you may load several chambers of the revolver, having exploded, or empty, cartridges in the other chambers, so as not to injure the nose of the hammer or the mainspring. The cartridges, loaded and unloaded, should be put in in irregular order, and the barrel spun round, so that you do not know when you have a loaded one to fire.

Now, go through the same drill as before; most likely, if the first cartridge is an empty one, you will be surprised to find you jerked it off instead of squeezing, owing to fear of the recoil; but if this is so, expecting your next shot to be also an empty cartridge, you will give a nice, smooth, gradual "let-off," with the result that you will get a bull, or close to it. The following shot, in consequence of your being too eager, will almost certainly be a very wild one, most likely below the target. This is caused by jerking the trigger, which results in bobbing the muzzle down. curious that, contrary to the usual idea that in firing quickly with the revolver one is prone to "shoot over," the exact reverse is the case, and that snatching at the

trigger generally gives a low left shot. I have my revolvers for rapid-firing competitions sighted to shoot higher than the others, to counteract this.

After a little of this sort of practice, you can get to loading all the chambers. Now the great thing is "time." Time and shoot like a machine. At Bisley one sees men



AUTHOR'S "BEST ON RECORD" SCORE. 20-YARDS DISAPPEARING TARGET.
"Any" Revolver, Bisley, 1896; .45 Smith & Wesson Revolver, U. M. C. Ammunition.
(Full size.)

fire one shot directly the target appears; the next too late—after the target has begun to go down; and whenever a shot goes wide, they dance about, stamp, or swear, and shift their position constantly, half raise the pistol and lower it again, and more antics follow in the same fashion. A man who shoots in this style may as well go home, for all the prizes he will win. I never trouble to look at his target; seeing his "form" tells me what his target must look like.

By your constant practice with the metronome, you ought to get the "time" so impressed on your mind that you could work the target at the proper intervals without any metronome to indicate the time. Your hand "comes up" simultaneously with the target; you fire just before it disappears (some of my highest possibles were made with the target just on the "wobble" of disappearing as I fired each shot); every instant must be utilised for the aim, and there must be no hurry or flurry. In fact, you become a "workman."

Do not get into the trick of "coming up" too soon before the target appears. There is nothing to be gained by it, and you might be disqualified. If a shot goes wrong or there is a misfire (you are allowed another shot for a misfire), keep on just as though nothing had happened; pay no attention to the number of shots you have fired in the score, or how many more have to "go." I have often started to "come up" again for a shot, not knowing that my sixth had already "gone," so mechanical had my shooting become.

In practice, never fire if you feel you are "off" the bull; better "come down" with the target, without shooting, and fire the next time the target "comes up." In this way you will perhaps "come up" ten times for your six shots; but you will have good shots for those that you have fired, and will be encouraged much more and get better practice than by firing a lot of wild shots, which, as you fired, you knew were badly aimed.

At Bisley, I find this the easiest competition of any, more so, if there is no wind, than the stationary twenty-yards target, but one can only keep it up for a short time.

One gradually gets into the swing of it, till one can "throw" each shot right into the bull's centre. This keeps up for a few entries; as one's arm tires, one begins to lose the absolute precision. It is then useless to continue shooting and it is time to take a rest.

The records for this competition are several "highest possibles" made by myself, both with military and target revolvers, and I have made many in practice.

You need a large front sight and open "U," so as to get your aim quickly. My favourite revolver has very coarse sights,—a front sight which, in aiming, seems nearly as large as the ball.

I like the sun as much behind me as possible for this and any other quick-firing or moving-object competition, as you can then at once see the hit on the target and can correct it, if necessary, at the next shot. At a stationary target, this seeing the hit at once does not matter, as you have plenty of time to locate your shot with your telescope.

In any competition in which unlimited entries are allowed, it is best to give up shooting an entry at your first bad shot and to start a fresh entry instead of shooting out the full six shots. Many men say, "It is better to keep on, as it is practice." In my experience I find that everyone has strings of better shots than his average, and these may commence at any time. If you have a three, for instance, as your second shot of a score, you may have four sevens to finish up with; then your next score may begin with two sevens and then a two. There are thus two scores spoilt, whereas, if you had retired at the shot counting three in your first score, and started another score, you would have had a string of six sevens in your

second score, making a highest possible score of forty-two. I have so often seen this sort of thing happen to others (though I have never allowed it to happen to myself) that I am sure it is false economy at Bisley, except in the limited-entry series, not to stop and begin afresh the moment you get a shot out of the bull.

Another thing men do is to keep shooting pool to "get practice," as they call it, till they shoot themselves out and make bad scores in competition. The place to practise is at home; there is no economy in paying half-a-crown for every six shots at Bisley, when you can shoot as much as you like at home for nothing.

The rapid-firing and fifty-yards competitions being more difficult, you may allow yourself one or two sixes in a score before beginning again; but stop at the first shot scoring less than six points.

If possible, choose a time when there is no one shooting at the target next you; as, even if you do not find yourself "letting loose" at the sound of his firing,—he, most likely, timing himself all wrong,—the smoke from his shots may drift across you, and spoil your view of the target.

Do not shoot whilst a man is "arranging his things," or "bringing up his target" next you; it will distract your attention.

Shoot one entry in each series of competitions,—disappearing, rapid-firing, etc.,—and then take the competition in which you have done worst (comparatively worst, should be said, as thirty-six in the rapid-firing is equal to forty-one at the stationary twenty-yards) and beat that score. The moment you have beaten that sufficiently for one of your

scores in another series to be the worst, go at that one; and so keep pushing the worst along. This gives you a better aggregate than any other system, and prizes are given for aggregates.

Be sure to look through your barrel after each entry. and wipe it out frequently, cleaning the cylinder, etc. Ouick shooting, especially in hot, dry weather, cakes and leads the barrel and spoils accuracy. If the pistol sticks or grates, however slightly, it is apt to spoil one's "time"; and if a chamber, from dirt, etc., does not come quite round, it will entirely spoil that shot. At Bisley, you must not "wipe out" during the shots of an entry. Where, however, there is no rule against it, "wipe out" after every shot at stationary targets, and use only one of the chambers. When you open the revolver after each entry, look carefully to see if the caps were struck in the centre, especially if you have made a bad shot. Should they be hit on the side, clean the revolver; if this still continues, take another. It is useless to keep on while this is happening.

Be very careful to see that you are using your own ammunition, the proper sort for each particular revolver, and not taking some other that happens to be lying about. Also be very particular to have your revolver passed, the trigger-pull tested, and ammunition examined before shooting, by the official appointed for the purpose by the National Rifle Association, whose office is at the firing-point. This should be done every day, morning and afternoon,—as the trigger-pull may have altered,—so that there shall be no chance of disqualification after a good score is made.

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Although it is, as a rule, best to finish your shooting at one class of competition, either moving or stationary, the change from one to the other gives a rest if you find yourself getting tired or discouraged. Moreover, as above explained, you secure a better "aggregate" by shifting from one series to another, though such changing would easily confuse a beginner. For the beginner, therefore, it may be as well to study one particular competition and only compete in it at Bisley the first year. This will probably place him high in the prize-list, and encourage further perseverance another year.



CHAPTER XV

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

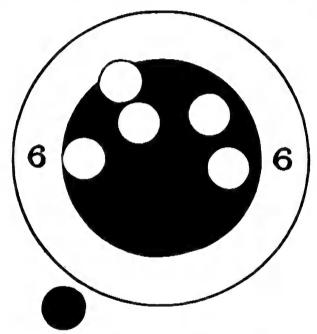
RAPID FIRING

Target appears for twelve seconds at twenty yards. All six shots must be fired during that time. Known as "The Rapid."

APID firing, in my opinion, is the most practical of all competitions, for a revolver is not a weapon for deliberate shooting, but for lightning rapidity at short range. Some years ago, when several of us were drawing up schemes for revolver competitions at Bisley, I experimented with rapid firing, and found I could shoot, with accuracy

enough for practical purposes, the six shots of a singleaction revolver in from seven to ten seconds, at twenty yards. This was before the invention of automatic pistols and revolvers, with which weapons I can now do it in from five to seven seconds. Thinking that this might be too difficult for the average competitor at Bisley, and might deter him from trying, I suggested twelve seconds as ample time to fire six shots with a fair amount of aim. This idea was adopted. As rapid firing is so important for practical shooting, I give below a few useful hints for learning it.

The record is forty for the "any" and two scores of thirty-nine for the "military" revolver, both made by myself; but I have made forty and forty-one respect-



AUTHOR'S "BEST ON RECORD" SCORE. 6 SHOTS IN 12 SECONDS
"Any" Revolver, Bisley, 1895; Rapid Firing; .44 cal. Smith & Wesson
Revolver, U. M. C. Gallery Ammunition. (Full size.)

ively out of a possible forty-two in practice at this "rapid" with black powder. The smoke hung so when I made this forty-one that I did not see where my shots were hitting, or even the bull's-eye in the last two shots, which only shows how one can learn to shoot by "sense of direction." These scores were made cocking with the thumb after each shot. With an automatic revolver

possibles should be made, but I am offering instruction in the use of only ordinary revolvers.

To begin with, it is necessary to get a revolver which works as loosely and as easily as possible. A half-worn-out revolver is best, as it works freer. Next, file the mainspring as weak as it is possible to have it without risk of too many misfires. If it has one miss-fire in every twenty shots, or so, it does not matter, the great thing being to have it cock easily. If the mainspring is weak enough, and an extra long thumb-piece is made to the hammer, one can put it almost to the full-cock with an upward flick of the revolver. I have never seen any good shooting done in this "rapid" when cocking by "double action." A very big front sight and a big "U" in the back one are advisable.

Stand as for disappearing target.

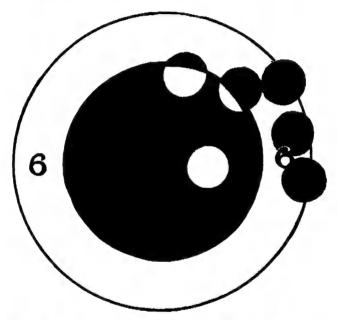
It is impossible—at least I find it so—to count the half-seconds up to twelve seconds. I count half-seconds in fours—"one, two, three, four"—for each shot; thus giving each of the six shots two seconds out of the twelve.

As the target rises, "come up," as in the disappearing series, but more quickly, increasing the pressure on the trigger as you "come up," so that the revolver goes off the moment it is horizontal and the sights are about right. I say about, because there is not time to correct the aim.

Your shot ought to go off before, or as soon as, you get to the word "two"; but be sure to squeeze back—not jerk off. It is possible, with practice, to get this "snap shot" into the bull or touching it. As this first shot goes off, instantly flick the hammer up to full-cock with your

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thumb—the recoil will help you in this. Be especially careful to take all pressure off the trigger whilst doing so. Unless you are very careful you will keep a slight pressure on the trigger with your first finger, which not only will prevent the revolver cocking properly, but may break off the sear-notch, or cause what you think is a "jam,"



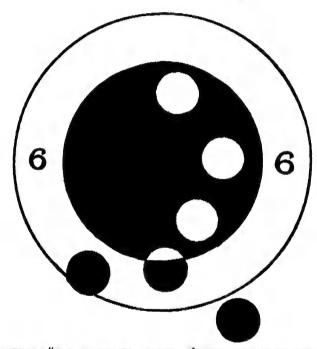
RAPID FIRING. AUTHOR'S "BEST ON RECORD" FOR MILITARY REVOLVER
AND SIGHTS

Black Powder. Six shots in 12 seconds at 20 yards; .45 Smith & Wesson Revolver, U. M. C. Ammunition. Bisley, 1895. (Full size.)

but what is really your own fault in fighting the trigger against the hammer.

You are very likely to have constant supposed "jams" of this sort at first, till you learn never to draw up the hammer without your trigger-finger being clear of the trigger. (I have more than once repeated this warning, as it is important to impress it on your memory.)

Your right arm—and, in fact, the whole of your body—should during the last five shots be immovable. You merely use your right hand and wrist to do the cocking and trigger-squeezing. Your aim during the cocking ought not to be disturbed enough to be more than a few inches off the bull. It assists cocking to cant the re-



AUTHOR'S "BEST ON RECORD" SCORE. 20 YARDS RAPID FIRING TARGET
Bisley, 1895; .45 Smith & Wesson Military Revolver, Winans' sights, U. M. C.
Smokeless Ammunition. (Full size.)

volver slightly to the right and back again as you cock it.

After each shot—and the instant the revolver is cocked again—begin a steadily increasing pressure straight back, and without a jerk, trying at the same time to get your sights as near the bull as you can before the revolver goes off again. The instant a shot is "off," begin to count afresh—"One, two, three, four."

You can fire as quickly as you can get your aim, without waiting to count to "four"; but do not wait longer than "four," except if needful for your last shot.

By the time you have got five shots off, there will be a vague sort of idea in your mind that each shot went off before the full two seconds were counted for it, which will very likely be the case. Therefore, take deliberate aim for your last shot.

From your previous practice at the disappearing target, you should have got used to the sort of tremor and grating sound which is apparent immediately before the target actually disappears. Do not count during this last shot, but make certain of a bull, even if you have to wait until the target is almost disappearing.

If the target is actually disappearing before you fire, you may, by *jerking down*, "rip" a shot into the bull across the target, even if the latter has got down to an angle of thirty degrees. In my record score, I think I must have spent over three seconds for this last shot; but it was worth it, as it turned out a central bull.

I have seen innumerable instances in which a man thought he was "late," and therefore "snapped" his last shot, making a miss; and then the target remained up for some time afterwards, showing that there had been no need for any hurry.

The rules to observe are: Snap the first; be quick over the next four (in case you cannot get quite on to the bull in one of these, take a shade longer over it and save on the remaining); and be *deliberate* on the last shot. It is better to chance not getting off the last shot in time than to spoil a winning score by hurrying it.

If using an automatic pistol or revolver, all this becomes much easier, as no time is then wasted in cocking and re-aligning the sights. All that you have to do is to release the pressure on the trigger the moment each shot goes off, and instantly begin to squeeze again as you get your next aim. Do not keep on too long in this competition; half a dozen entries or practice scores are ample at a time. One only gets erratic and wild if one continues too long, and the revolver also gets hot.

Any shot not outside the five-ring is a good one at this competition, except for the last shot, which should be a bull.

The sighting may have to be different in this from that required for slower shooting. Some men shoot up in one corner when snap-shooting with the heavy Bisley trigger-pull; but of course, for practical use, a revolver with such a trigger-pull should not be used, and it is preferable to have the sighting so that one can aim straight under the bull, instead of having to make allowance for the jerking off. The trigger-pull should be as light as is deemed compatible with safety. I fancy the Webley Automatic revolver will stand as light a pull as an ordinary revolver, but the automatic pistols so far on the market have a very heavy trigger-pull.

It is a good plan to have the name of the competition for which the revolver is sighted engraved on the stock, so as to prevent using the wrong revolver for it; also to have the revolvers for each series plated, as I have already suggested, a different colour,—silver, copper, gold, etc.,—for the same reason.

A good time to shoot is when the shadow of the parti-

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tion falls diagonally across the target, bisecting the bull; it gives one a line instantly to get an aim by, even if the bull is obscured by smoke.

It is useless to shoot except in a dead calm at most of the moving and disappearing targets, as a wind blows the aim crooked; but at this competition, if you can get to leeward of the partition, so as to get shelter for yourself, a little wind to blow the smoke away, if you are using black powder, is rather an advantage. Wearing glasses to protect the eyes is very important at this game.

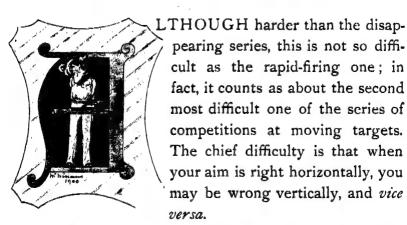


CHAPTER XVI

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

TRAVERSING TARGET

Known as "The Slider." Target moving across the line of fire at the rate of quick-march; range twenty yards.



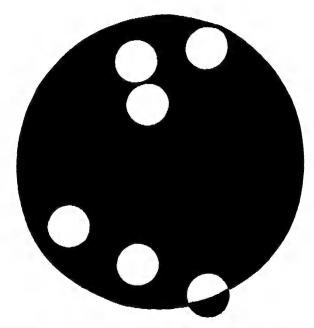
There is no necessity in this series to count, as you can see when the target is about to disappear.

Every range officer has his own idea of what speed constitutes "at the rate of quick-march," so there is nothing gained by timing the "run" and setting the metronome bell to indicate that time for your man who runs your private target.

It is especially important not to shoot in this series

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until the Bisley meeting is several days old. For the first day or two, the men who take it in turns to "run" the target (which is done by turning the handle of a big wheel, over which runs a wire rope) are new to the job, and run it irregularly, jerkily, and with unequal speeds. Under such conditions, it is impossible to judge allowance of aim in front of the bull's-eye.



AUTHOR'S "BEST ON RECORD" SCORE. TRAVERSING TARGET, 20 YARDS Wimbledon, 1888; .45 Smith & Wesson Revolver, Eley's Ammunition. (Full size.)

The "holding," or "allowance," in front which made your last shot a bull may at your next either land you behind the bull, or the man may slacken speed just as you squeeze off, and put you in front. Watch these men carefully, and decide who runs the target best. Choose your opportunity in a dead calm, and when he is running the target well and evenly (the speed does not

much matter, and personally I can shoot better when the target is going moderately fast) take your entry. On no account shoot if the man is running the target badly, either from his own fault or owing to the cord or wire being, from rain or other causes, too slack or too tight.

When first practising for this competition, have a target made with a black band two inches wide running down the middle of the target, instead of the usual bull's-eye. Begin your practice at this, having it first put up with the black band vertical, and then with it horizontal. Shooting at it vertical will show you if you are getting the right allowance in front in your aim. When it is horizontal, it will show you if your elevation is correct. This can be elaborated by having black bands painted or pasted on the back of an ordinary target and, with its back towards you, shooting at them. Then, by turning it over after the six shots have been fired, you will see what score you would have made on a regulation target. The reason for this practice is that there are two things to attend to. One is the "allowance" in front, the other is the "elevation"; and if a beginner tries to think of both at once, it will confuse him.

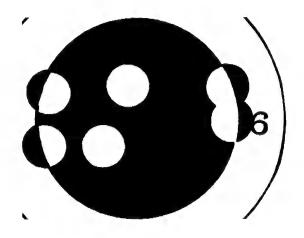
If, after you have got pretty certain of your "allowance," you go to "elevation," you will most likely lose your "allowance," and have to go back to the vertical band; and so on, alternately, till you can trust yourself at the regulation bull.

Most people, unless they use alternate hands, find the "run" one way easier than the other. If you have any preference, begin your competition with the run from the more difficult side, which will ensure your having an easy

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run for the last shot; whether your score wins or not often depends upon your last shot, and it is best to make that as easy as possible.

I prefer higher elevation in sights for this competition. Instead of aiming to touch the bull at "VI o'clock" to get a central bull, the aim should be at the actual elevation you



AUTHOR'S "BEST ON RECORD" SCORE. TRAVERSING TARGET, 20 YARDS Bisley, 2896; .45 Smith & Wesson Revolver, U. M. C. Ammunition. (Full size.)

want the bullet to go, so as to enable you to aim off at "III o'clock" and "IX o'clock" for right and left runs respectively.

Some people who are slower on the trigger—that is, who take longer to give the order to the trigger-finger when their eye says the aim is right—may need more allowance.

There is in astronomical work a technical term ("reaction time") for the process of timing first contact in

eclipses, and each observer deducts his own personal error, which seems constant to him. This allowance varies in revolver shooting with different men. I personally need very little allowance when the target is running to the left—half an inch out at "IX o'clock"; and even less (about a quarter of an inch out) at "III o'clock," when running to the right. Taking stimulants makes this slower, but as I never smoke or take stimulants I cannot speak from personal experience. Mr. Victor Horsley, however, in a lecture delivered on April 27, 1900, at St. James's Hall, on "The Effects of Alcohol on the Brain," says:

INCREASED REACTION TIMES.

The time occupied by the nervous system in observing and recording the simplest thing was called "the reaction time," and was so appreciable that in all minute and accurate records astronomers had to measure their reaction period, and to account for it. The lecturer then demonstrated by an experiment the method of measuring the reaction time. This plan in all forms and varieties had been very largely employed by Professor Kraepelin, whose investigations had been so thorough and complete that they explained the somewhat contradictory results obtained by Warren and other observers, and had established on a thoroughly scientific basis the direct influence of alcohol on the higher centres of the brain. The effect was that very speedily after taking the dose of alcohol the reaction time was shortened, but this shortening, that is to say, this apparent quickening of the cerebral act, lasted only a few minutes, and then marked slowing set in, and for the rest of the time during which the alcohol acted, varying from two to four hours according to the individual, the cerebral activity was diminished. The diminution was shown by a noteworthy lengthening of the reaction period - in other words, it took longer for a person who had had a small quantity of alcohol to think. The evidence, therefore, was overwhelming that alcohol in small amounts had a most deleterious effect on voluntary muscular work.

Some men aim at a spot, and wait for the target to come up to it; but this is useless, as anyone knows who has shot moving game with a gun.

Stand absolutely square to the front, or perhaps a little more toward the side on which you find it most difficult to follow the target. Plant the feet slightly farther apart than for the other competitions, and swing the whole of the upper part of the body from the hips. Do not swing your right arm, keeping the rest of the body still. The shoulder-joint does not give so smooth an horizontal swing as swinging from the hips. Moreover, if you swing the arm, you have to turn the head, or else have to look out of the corners of your eyes, instead of straight before you.

Let the whole of the upper part of your body be held rigid, and swing only on the hips. Lift your revolver from the table as the target appears, and swing with the target, bringing up the revolver on a diagonal line (this is the resultant of the vertical rise from the shoulder and the horizontal swing of the hips). Let the sights come horizontal to the eyes a little in front of the proposed allowance; and, as you keep your arm moving in front of the bull, gradually let the bull overtake you, till it is the right allowance behind your sight; and still keep on swinging. All this time be gradually squeezing the trigger, so that it squeezes off just when the aim is right. Be sure not to stop swinging before the revolver goes off.

Some range officers make you "put down" after each shot; others let you keep "at the present" between the shots. I do not think the latter is of any advantage; it tires the arm, and you cannot make the diagonal swing up to your spot in front of the bull.

At the firing-point of this range you cannot get shelter from the wind, so choose if possible an absolutely calm time for shooting. My record score of a highest possible was made at this target "coming up" each time from the table, and was shot in a strong wind at 10 A.M.

I do not think it is of any use deciding to fire upon a certain part of the "run": it is best to fire when you feel you are aiming right, and you may get this feeling sooner in the "run" on some days than on others.

There is a tendency to "follow" too long, and then, owing to lack of time, to jerk off just as the target disappears. I have made bulls when the target was almost out of sight, in fact, I did so in my record shoot; but this is a bad habit to contract, and a risky sort of shot, as it is almost sure to be too far behind, or even to be fired into the shield in front of the target; though, of course, if you have not a good aim, it is better to delay as long as possible, rather than to shoot earlier with a bad aim.

Be sure in your private range that your shield is bulletproof, or you may get into the habit of making "bulls" when the target is "sitting" behind the shield, by shooting through it. To economise space, you can have this target run in front of your disappearing-target apparatus, putting the latter out of the way when not needed; this latter will also serve for stationary-target purposes, and to hold the fifty-yards target. Do not have a target which runs by gravitation, as shooting at a target which is running downhill requires quite different sighting from that needed with one running horizontally.



CHAPTER XVII

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

THE ADVANCING TARGET (POPULARLY KNOWN AS "BURGLAR")

URGLAR is the nickname by which this competition is known, though "The Attack" would be more appropriate.

This competition is my own invention. It is shot at a fifty-yards target (four-inch bull's-eye), which advances from fifty up to fifteen yards—all six shots to be fired during that time; the revolver

not to be raised from the ledge before the target starts moving.

This is one of the easiest series, though some men seem to get very flurried when the target gets close to them, and I have actually seen the whole target missed when it was at fifteen yards, the target being some three feet square! You must shoot as if it were a stationary target, which it practically is. As it approaches, you have constantly to change the focus of your eyes; this is

the only thing which hampers you. You do not count in this, as you are able to judge by sight how much time you have for shooting.

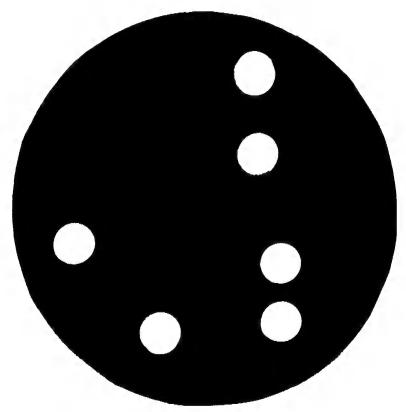
Raise your arm very deliberately, and take a very steady, slow aim; be sure to put the first shot high enough, especially if using gallery ammunition. revolver to use is the twenty-yards disappearing-target one; so this shot must be aimed high, the sighting being for twenty yards in your revolver, and varying according to how heavy a charge you are using. If you find that altering the elevation confuses you, this may be contrived artificially by leaving your cartridges loaded with diminishing charges of powder.

The target is supposed to be going at "quick-march time"; being rather heavy, it is most likely travelling a little more slowly. At any rate, there is not the least hurry; by the time the first shot goes off, the target will be about forty yards distant.

If you are a quick shot, and can get off your remaining shots fast, let it come nearer before you fire this first shot; the closer it is, the more certain you are to make a bull. For the remaining five shots, as the bull is four inches in diameter, and the distance decreases from about thirty-nine to fifteen yards (average twenty-five yards at a four-inch bull), you ought to have no difficulty in getting all bulls. The only thing is to be careful to take a slightly lower aim each shot, to allow for the gradually shortening range, the last two or three being aimed "well in." at "VI o'clock." The last two shots are so ridiculously easy that one is apt to become careless and to think that any aim will do; with the result that perhaps

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the last shot is jerked off the bull. Treat the bull for these last shots as an old deer-stalker taught me to do when stalking: "Don't aim at the deer as a whole, but pick out an imaginary spot on him and aim at that." In



AUTHOR'S "BEST ON RECORD" SCORE. ADVANCING TARGET

"Any" Revolver, Bisley, 1896; .44 Smith & Wesson Revolver, U. M. C. Gallery Ammunition.

(Full size.)

the present case, if there is a bullet-hole "well in" about "VI o'clock," use that to aim at; and even if you "jerk off" that, you cannot well miss the whole bull.

Best on record: A highest possible of forty-two made by myself; all the shots close in the centre of the bull.

146 Art of Revolver Shooting

With an automatic revolver or pistol this competition is ridiculously easy, as you can wait until the target approaches within twenty-five yards before firing your first shot.

There is not yet a "retiring" target, although I suggested such an one; but in such a case the procedure should be reversed: get off the shots as quickly as possible, as each moment makes the shooting more difficult; and aim gradually higher with each shot.

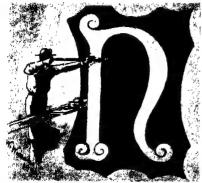
To shoot at a target first advancing then retiring, three shots each way, let all your shots be fired whilst the target is near, and utilise the first part of the "advance' for aiming your first shot.



CHAPTER XVIII

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

STATIONARY FIFTY-YARDS TARGET



OW we come to the fifty-yards target.

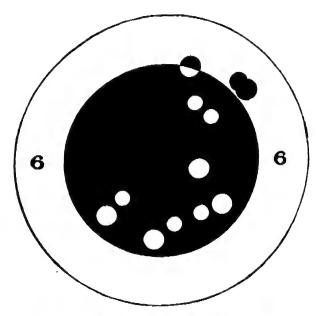
To shoot in this series (known as "The Long Range") you require the smallest and finest sights which you can see clearly without trying your eyes. There is no advantage in having them smaller than

you can see properly.

Also, it is well to have several revolvers with sights of different sizes, and differently sighted: some high, some low, some to the right, and some to the left, so as to suit varying light.

By the Bisley rules, you are not allowed to adjust your sights.

I have experimented with peep-sights; but one cannot hold a revolver steadily enough to get the full advantage of a peep-sight. Have a telescope or binocular (being a deer-stalker, and having very long sight, I prefer a telescope, but prismatic binoculars are good) and locate each shot, correcting the next, if necessary, by altering your aim—as the rules will not permit you to alter the sights;



"BEST ON RECORD" MADE BY AUTHOR. FIFTY-YARDS TARGET
Bisley, 1894. Twelve consecutive shots: Six with .44 Smith & Wesson Revolver,
six with .38 Smith & Wesson Revolver. Smith & Wesson self-lubricating bullet.
(Half size.)

shoot very deliberately; rest your eyes frequently; stop at every breath of air, and only fire when you are "dead sure." Clean after each entry.

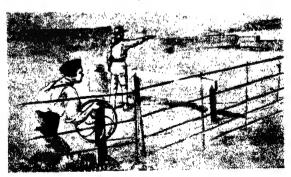
Do not keep on too long at this range. A few entries now and again are best, as it is very straining to the eyes and trying to the muscles.

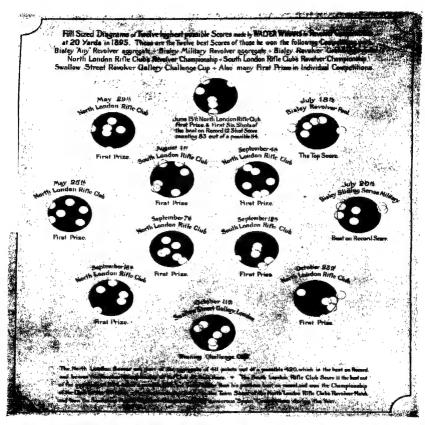
Personally, I prefer a heavy charge, as giving more

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accuracy at fifty yards; but one cannot stand many shots with a heavy charge without feeling the consequences.

The best on record is eighty-two, out of a possible eighty-four, made by the writer in twelve shots: the first six shots (score forty-one) winning the military (with .44 Russian Model Smith & Wesson, full charge of twentythree grains of black powder, self-lubricating Smith & Wesson bullets), the last six winning the "any" revolver series (with a similar revolver bored to take a .32 calibre long cartridge and similar ammunition). The twelve shots were fired consecutively, without any sighting shots between. In both these scores, the shot out of the bull was a "nicker," almost touching the bull. I used the Smith & Wesson self-lubricating bullet, which I described elsewhere, and which I think was responsible for the result, as it keeps the revolver from fouling, which it would otherwise do with so heavy a charge. I have fired one hundred shots with this bullet in very rapid succession, without cleaning, on a hot, dry day, without the revolver fouling to any appreciable extent, or losing its accuracy. As no other twelve-shot score at this range has ever come anywhere near this, I think I am right in considering the bullet a good one.





DIAGRAMS OF TWELVE HIGHEST POSSIBLE SCORES MADE BY AUTHOR IN REVOLVER COMPETITIONS AT 20 YARDS IN 1895

The diameter of the original bull's eyes is a inches

CHAPTER XIX

NATIONAL RIFLE ASSOCIATION AT BISLEY (Cont'd)

TEAM SHOOTING AND COACHING

HEN you are a member of a team, do exactly what the captain of the team directs you. Never mind if you think that he is wrong, and that you could do better work in your own way. It is "his show," and he

alone is responsible; merely shoot as well as you can in his way. Of course, if he should ask your advice, that is a different thing.

Should another member of your team ask your advice, refer him to your captain.

If you are captain of a team, and have the choice of men, select, preferably, men whose nerve can be relied upon; a veteran who does not get "rattled," even if only a moderate shot, is preferable to a brilliant beginner who may go all to pieces at a critical moment.

The man I prefer in a team is one who always shoots a good consistent score,—never brilliantly, yet never badly; you can always rely upon him to shoot up to his form. If you have two such men, let one of them shoot the first score,—if possible against your adversaries best man,—so as to give your team confidence that they are likely to hold their own.

Reserve yourself—or your most reliable shot, who can be trusted not to lose his head—for emergencies, such as these: to shoot last, when everything depends upon making a good score; when the light is bad and likely to improve later; if there is a wind that may drop later; for pulling up a score when the other team is leading; for getting the sighting when you retire to the fifty-yards range; to shoot, "turn and turn about," against the most nervous or dangerous man of the other team, etc.

You should specially notice if any of your team are getting nervous; prevent their watching good shooting by their adversaries, or looking at and comparing scores. Encourage them to think that their own team is so strong that their own individual shortcomings do not matter. You can, in this way, "nurse" a man along who is on the verge of "going to pieces."

If possible, do not let your men know how the scores stand. If there is a wind, rain, or bad light, consult with your most "weather-wise" man, and decide how to "place" your bad shots so as to give them the easiest "shoot." That is to say, if the wind is likely to drop later, shoot your strong shots when the weather is unfavourable.

It is also a good thing to have a reliable member of the team stand behind each one who is shooting, to "spot" for him, keep time for him, and otherwise coach him, watching the time constantly, so as to let his man know instantly—if he asks—how much longer the time-limit

allows him. Coaching is allowed in team shooting, out not in ordinary individual competitions.

Do not let any member of your team leave the range on any account till the competition is over.

Have a man or two extra, in case of anything disabling or preventing one of your team from shooting.

Do not let two men shoot with the same revolver, as both men may be wanted to shoot at the same time.

Do not scold a man, however badly he may be doing; you only flurry him, and it does no good.

Do not have any refreshments for your team until the competition is over.



CHAPTER XX

NATIONAL RIFLE ASSOCIATION AT BISLEY (Concluded)

GENERAL REMARKS ON SHOOTING IN COMPETITIONS



HEN shooting in competition at Bisley, — or elsewhere, for that matter, — be careful not to spoil your opponent's scores. Never approach or leave the firing-point while he is aiming or about to shoot. If he is about to shoot, and there be time, reserve your shot till he has fired; and do not fidget with your revolver or cartidges or get your target drawn

up whilst he is aiming. Keep perfectly still and silent till his shot has gone off. Do not speak to him at any time, except to answer some question of his. If he is at all nervous, you might by a slight movement or word ruin his score.

Read carefully, before shooting, the rules of the competition in which you are about to engage, and be sure you comply with every detail of them. If you find you have, inadvertently, transgressed a rule, report to the range officer at once, and get your score cancelled.

Write your name very distinctly on your score-card;

I have known a man to lose a prize owing to his name being illegible on the score-card. See that your shots have been entered properly and rightly added up and corrections initialled.

Have your target dated and signed by the range officer, with the name of the competition also inscribed, and keep it as evidence in case your card should get lost. Be sure you do not by mistake have a score entered on a ticket belonging to another series.

Before shooting at Bisley, I put a weight in a chemist's scale equal to the average weight of one of my loaded cartridges. I weigh each cartridge against it; put all of the correct weight aside for Bisley, and keep the others for practice. By this means, I minimise the chance of a weak or too strong shot.

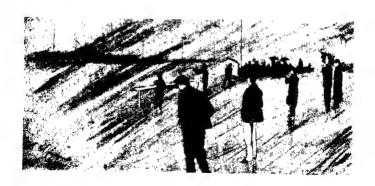
When you are at the firing-point, pay no attention to what anyone else is doing, or to what scores have been, or are being, made, or to any of your scores being beaten; the great thing is to have the average all round high for the aggregate prizes. If you are constantly watching the scores of others, rushing from range to range as your various scores are passed, you will have much less chance of making good scores than if you keep plodding on, constantly adding a point or two to your aggregate. You can afterwards try to beat individual scores, if necessary. Of course, if you at any time, in any one series, get a score which you think is up to the limit of your skill, you may let that series alone till you have reached your limit in another series. Never watch a good man shooting; it will only make you doubt if you can beat him. It is also tiring your eyes uselessly.

Do not read or use your eyes any more than is absolutely necessary. When resting, dark glasses will be found a great relief to the eyes. I find that if I am getting tired of shooting, a half-hour's gallop on a horse that does not pull freshens me up, and helps to divert my thoughts; others may prefer lying quietly down and shutting the eyes.

If you find yourself getting stale, drop the whole thing, even for several days. It will not be time wasted, as you will shoot better afterwards; and you will certainly get worse if you keep on without rest.

Never protest or dispute a score or decision. The range officers are doing their best under very trying circumstances. If you think any decision wrong, say nothing about it and forget it; you will only spoil your shooting if you worry about it. Just set your teeth and make a score a point better than the disputed one ought, in your opinion, to have been. The protesting man is a nuisance both to himself and everyone else.

Should you see a man infringing the rules, leave it to others to protest.



CHAPTER XXI

STAGE SHOOTING

HIS subject can be subdivided into two parts: real, expert, very accurate work, requiring great skill and nerve; and conjuring tricks, that is to say, shooting assisted by apparatus and the arts of the conjurer. The greatest insult that can be offered to a professional shot is to call him a conjurer.

You must have a safe background to shoot against. The best, in my opinion, is a steel plate, leaning towards you at an angle of forty-five degrees, and below it a shallow tray, filled with sand, to catch the bullets, which flatten on the steel and drop into the tray. As only very light powder-charges are used, and as the revolver bullets for this purpose are round, or semi-round, this is sufficient.

It is usual to have something for the bullets to go through before striking the steel plate. Green baize is good for the eyes as a background; but it is dangerous, being very inflammable; it gives off fluff, some of which stands out from the baize, and the rest falls to the ground. This is like tinder and is liable to catch fire



SHOOTING WITH REVOLVER UPSIDE DOWN

from burning particles of powder. Some fabric dipped in a non-inflammable mixture should be used; either green, white, or black, whichever you find suits your eyesight best. The butt is either put "prompt" side of the stage (so that the shooter's right arm is nearest the audience), and at a slight angle, in order that people may see the target; or it is placed at the back of the stage, the shooter standing with his back to the audience. In either case, the shooter keeps his "tools" on a side-table, and when he shoots he stands quite clear of any table, so as to afford an uninterrupted view of all his proceedings.

The range is about fifteen feet. This may seem very short, but it looks a long shot on a stage; and it must be remembered that the shooting is at very small objects and no misses are allowable. The golden rule to be borne in mind in stage shooting is: Never hazard a shot that is not very easy to you, and which you cannot be practically sure of successfully accomplishing. If you try a difficult shot and succeed once in three times—such as hitting a pin thrown into the air—hardly any of the audience will think of you as aught but a bad shot; whereas, if you hit six stationary glass balls—each as big as an orange—in rapid succession, they will think you wonderful!

WEAPONS

One or more .44 Russian Model Smith & Wesson target revolvers; Ira Paine target sights; hair-trigger; Union Metallic Cartridge Co.'s gallery ammunition. I use the revolvers which formerly belonged to Ira Paine; several front sights, the finest about the size of the head of a small pin, the stalks as fine as a needle; hind sight

adjustable, both laterally and vertically, with screw adjustment; trigger-pull so light that laying the finger on the trigger almost sets it off. With such a revolver, of course, extreme care must be taken never, for an instant, to have the barrel pointed in any direction except that in which it would be safe for the bullet to travel, and also to keep the finger off the trigger till you actually want the bullet to go.

Ira Paine, when shooting at objects on the head of an assistant, used to "come down" from above, instead of "coming up" in the usual way; so that if the pistol went off by accident there would be no danger to the assistant, as there would be if the muzzle travelled up his body to his head in sighting from below.

I do not approve of shooting at objects on the head or in the hands of an assistant; it is not, in my opinion, justifiable to risk life in this way.

The other weapon is a Stevens, or Smith & Wesson, single-shot .22 pistol. Some people use this to give variety to the show; but I prefer to stick to my own weapon, the revolver.

See that a narrow plank of wood—metal would, if struck, make a bullet glance—is put in front of the butt with slits and clips in it for holding objects. As mentioned above, I do not like assistants' holding them in the fingers, though, for this purpose, steel thimbles are generally worn over the thumb and forefinger, and are concealed by a glove.

Professionals sometimes shoot objects on the heads of assistants—generally a lady with her hair piled up very high, or wearing a steel skull-cap under a wig.

The following shots I recommend to amateurs as safe. Beginning with the easiest, we have:

Six stationary balls in a row. (The balls are cast from a mixture of resin and whiting; they are very brittle and break at a graze.) Take them as quickly as you can be sure of them. With practice, you can "snap" the six off in about four seconds.

Next extract the used cartridges, and have them put in a row on the edge of the board, standing them on their bases. Hit them in quick succession. This requires a little more care, as they are small; but their height prevents your being likely to miss vertically, and you have merely to pay attention to keeping your horizontal aim correct. Be sure not to shoot too low; for if you do, and hit the plank, you will jar all of them off it.

This can be varied, if you are a really good shot, by placing the cartridges on their sides with the cap end towards yourself; but it requires good shooting.

Shooting at an object with a wine glass on each side without breaking the glasses is a trick in which the difficulty varies according to how close the glasses are.

Put up a piece of paper with a black pencil line ruled vertically on it; hit this line. This requires care not to "pull off" to one side.

A similar line horizontal. This is more difficult, as the elevation must be absolutely correct if you want to hit the line.

Hit a swinging ball. Take the shot on the turn; do not follow, but aim at an imaginary spot just inside of where the ball is at one end of its swing, aiming at "IX

o'clock," as the ball is momentarily stationary at its farthest swing to the right, or vice versa.

Put six balls in a row; hit one with the revolver in the right hand, a second with the revolver in the left; a third and fourth with the revolver upside down (A and B), pulling the trigger with the little finger and using alternate hands. The remaining two shots to be made with

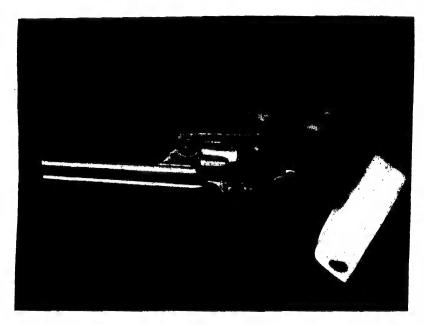


FIG. A.

the revolver held half canted to the right (C), and then half canted to the left (D). The unusual positions explain themselves in the photographs. After a little practice, none of these positions are difficult.

The upside-down shot, as soon as you get used to aiming at the top edge of the ball instead of the bottom, is a very steady, easy position. For the two side ones, you aim at "IX" and at "III o'clock," respectively.

Hang your watch on a hook on the board, and place a ball resting on this hook. Break the ball. This is easy, as the ball is, comparatively, a big mark. Aim at the top edge of the ball so as to break it by a grazing shot near the top; this is less risky for the watch.

Do the same with any watches lent by the audience. A man once kept lending me his watch for this trick; I found out afterwards that it would not go, and he had



FIG. B.

hoped that I would hit it and thus be compelled to give him another!

Borrow small objects from the audience, and hit them. Stamps on envelopes, visiting cards, bits of pencil, etc., are suitable; but do not shoot at anything which will make a bullet glance, or you may hit some of your audience. Thus a walnut is very dangerous, causing bullets to glance; an orange or an egg explodes beautifully when

hit, but both are rather messy. The coloured balls for Christmas trees are nice to shoot at; but a bullet sometimes makes a hole without breaking them.

Put up the ace of hearts and hit it. It is usual to have a pack composed of only aces of hearts. Have several ace cards placed on top of each other, and when the bullet goes through the group, have the cards "dealt" among the audience; or, if at a Charity Bazaar, sold singly.

Put up the six of hearts, and hit the six pips. This

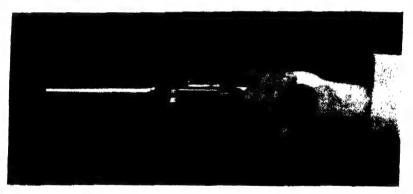


FIG. C.

requires some doing to get all six shots neatly in the separate pips.

Put a card edgeways towards you and cut it in half. This is a pretty trick and brings down the house when well done. It requires the same skill as hitting the vertical pencil lines. If you are not very sure of yourself, and you succeed on the first shot, do not risk a second try. This rule applies to all the difficult shots. My best score at this game was five cards out of six shots, the cards being placed edgewise at a range of fifteen feet.

Hit a string from which an object is hanging. Get

string which is weak, and have the object pretty heavy, or else you may "nick" the string without its breaking. Berlin wool, with a weight so heavy that it strains the wool to nearly breaking-point, breaks with more certainty than string or twine. There is an ingenious, though scarcely legitimate, way of making this shot very easy. You merely double a piece of string and tie a knot, hanging it over two nails, the distance between which is a fraction under .44 inch. Two hooks on the ball are

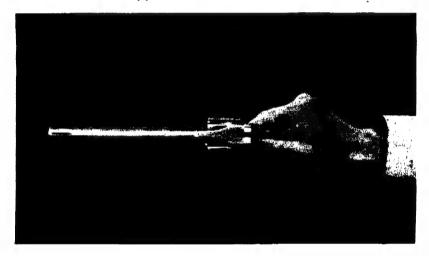


FIG. D.

the same distance apart, so that the ball is thus hung by a double string. If you hit between these, both strings are necessarily cut by a .44 bullet, if your aim be true, while one is cut even if you hit half an inch out.

Put a ball filled with red fluid on top of an empty claret glass; break the ball, and the glass will be filled with the fluid. Take care the ball fits very loosely, and rests only slightly in the glass, or the latter will break also.

Knock a cork off a bottle; an ordinary wine bottle or a wooden or metal one is dangerous if hit, as causing the bullet to glance; it is better to have a plaster of Paris bottle, painted black.

Put up a bunch of six grapes, and take them off one at a time.

Put up candles and snuff them.

Hit two balls simultaneously, one swinging past a stationary one, or both swinging from opposite ways. You have to take them just as one is about to cover the other.

Have a ball swung round horizontally at great speed centrifugally from a small wheel spun by clockwork. This requires very good "timing," you aiming at a side and pulling when the ball is at the opposite side, or you will be too late. Stand two balls with a steel knife-edge between them, vertically towards you and rather nearer to you than the balls. Hit the knife-edge in such a manner as to split the bullet in two pieces, which fly off and break the balls. The knife must be securely fastened, and the precise distance between the back of it and the balls (which varies according to the distance they are apart) must be determined by experiment.

Hitting an object with a paper on the muzzle hiding the mark. Cut a round hole, just big enough to slip over the muzzle, in a piece of thick paper the size of an ordinary envelope. Slip this over the muzzle, up against the front sight. When taking aim, it will be found that with the left eye closed the paper hides the object. By keeping both eyes open, however, shooting is easy, the right eye working the sights and the left seeing the object. The

paper must not project much to the left, or it would hide your view with the left eye.

Fix a nail slightly in a block of soft wood and drive it home with a shot.



CHAPTER XXII

TRICK SHOOTING



E now come to the conjurer's style of shooting, which I would not advise anyone to practise, even for a Charity Bazaar; it will ruin his reputation as a shot. However, I will describe hereunder some of the devices in connection with this trick shooting.

The chief apparatus—under different forms—is a lever some twelve inches long. This lever is pivoted in its centre; one end has a steel disc about a foot in diameter, or less, according to the shooter's skill—of a size he is sure of never missing,—the other end has a steel point at right angles. The lever is placed vertically at such a height that the steel spike is just opposite the middle of the ball which is placed on the assistant's head. The steel disc is some eight inches above the man's head; the whole of this apparatus is hidden from the audience behind the "back cloth" of the scenery. The locality of the disc is

indicated to the shooter by something in the scenery, as a pattern, or a trophy of flags, etc.

The assistant stands with his back against the back-cloth, and the ball is on his head so that the steel spike is just clear of the middle of the ball; the shooter then fires at the trophy of flags, or what not (which is eight or more inches above the man's head, and therefore a practically easy and safe shot); the bullet hitting the disc, drives it back; the other end of the lever with the spike comes forward; the spike goes through the scenery, breaks the ball, and at once returns out of sight. The trick is varied by having the lever inside a dummy figure, the performer shooting into the figure to break small objects on its head or in its mouth. A bellows is sometimes behind the back-cloth with the nozzle at the flame of a candle which is blown out when the bellows is hit; and the shooter is supposed to have snuffed the candle.

The shooting can be done at quite long range from the back of the gallery to the back of the stage (for instance) by lengthening the lever so as to minimise risk to the assistant.

Another way in which the candle trick is done, is to have each candle inside a large concave reflector; the splash from the bullet comes back from the reflector and puts out the candle.

Shooting at anything moving—swinging balls, etc.—is done with shot; the shooting in this case must be done with a back-cloth over the butt, as the splashes on a naked steel plate would betray the use of shot. This makes very easy what in legitimate shooting requires nice "timing." The cartridge is either simply filled with special

shot even smaller than "dust" shot and a wad, or if the cartridges are likely to be seen they are loaded with hollow wooden black-leaded bullets, full of shot, which the rifling of the barrel breaks, and these are substituted by "palming" for real bulleted cartridges shown to the audience. Shot is sometimes fired out of a smooth bore revolver.

Two balls are broken with a revolver in each hand, shot simultaneously. This is always considered very wonderful, the performer pretending to take a long time over his aim, etc. One revolver is loaded with shot, the other with blank ammunition. The one loaded with shot is aimed between the two balls; the spread of shot breaks both balls.

Knocking ashes off cigar whilst being smoked by assistant: A long hat-pin is put into the cigar, the point just reaching up to the ashes. On the shot—a blank cartridge—being fired, the assistant pushes the knob of the pin with his tongue, and dislodges the ashes.

Objects held in the fingers or resting on the shoulders of assistants are shot with cork bullets, and the assistant wears hidden steel epaulets and finger-tips.

Blindfold shooting is done by seeing down the side of the nose on to a looking-glass fixed at an angle behind the hind sight.

What is called shooting through a wedding-ring and breaking a ball is done with the lever apparatus; the bullet does not go through the ring, but above it.

Shooting at the trigger of a loaded rifle fixed in a rest, the shot from the rifle breaking a ball on the shooter's head, is also another form of the lever apparatus.

I think that in stage performances there should be a committee of shooting men appointed by the audience to see that the shooting is genuine and not trick shooting.



CHAPTER XXIII

BLANK AMMUNITION FOR STAGE PURPOSES

LANK ammunition, generally known "Fourth of July" ammunition, is generally made with a wad tightly crimped over the powder so as to make as loud a report as possible.

There is a chance of a piece of the crimped metal of the cartridge coming out of the barrel, and this may do a fatal injury if it hit anyone.

Most people using blank ammunition on the stage and elsewhere think it harmless and frequently fire right into each others' faces, at a distance of a few feet, or even inches. It is extremely dangerous to shoot blank ammunition at people—apart from the rule that one should never, under any circumstances, point a revolver at anyone, unless, of course, it is desired to hit him.

A boy ought to be whipped if he shoots blank ammunition at anyone, or even if he points an empty or toy weapon. I saw a man's eyes both permanently injured on the stage, in a mock duel, through the wad and burnt particles of powder hitting him in the face.

Some actors "blaze away" up in the air (under the impression that they cannot thus do any damage), either

up into the "flies," to the imminent danger of setting them on fire or injuring the limelight man, or else into the grand tier boxes, out of which most likely one of the occupants is at that moment craning his head and risking getting the whole charge full in his face.

There is a pneumatic imitation revolver which makes the "bang" by breaking a piece of paper stretched inside the barrel (on the principle of "popping" a paper bag by first inflating it and then bursting it with a clap of the hands); this makes plenty of noise, and is much safer than blank ammunition.

There have been so many fatal accidents in stage battles and duels that I think all stage arms should be built on the last principle; it would also be an economy, as the ammunition gets used wholesale in these battles.

Another great danger is the chance of a loaded cartridge having been mixed up amongst the blank at the factory; or (according to an inquest reported in the press last year) when blank ammunition of different calibres is used (as rifle and revolver) of a cartridge of smaller bore dropping into the barrel and being shot out by the next one that is fired.

The foregoing remarks apply also to shooting blank ammunition for starting a foot-race, etc. In this case the paper bag "bang" would not be loud enough, and blank ammunition must be used.





DEER SHOOTING OFF HORSEBACK-A RUNNING SHOT

CHAPTER XXIV

BIG-GAME SHOOTING WITH THE REVOLVER



DO not think the revolver is of much use for stalking deer or other big game. Of course it is out of the question for any of the thick-skinned animals. But for shooting from horseback, or out of a carriage, I think it is much better than a rifle. One can swing much better with it when in a cramped position, or when both the object aimed at and your-

self are moving, than with a rifle.

The revolver was the favourite weapon in "buffalo running" in the old days. I should think it would be very good for "pig" in India, as a change from spearing; but I suppose this suggestion is a heresy. Anyhow, for a leopard, or other animal too dangerous to be tackled with a spear, it would be useful.

When park-deer are killed, instead of the very tame sport of following them around in a cart, or sitting up a tree, a gallop round after them on a good horse with a revolver is capital fun, and it is surprising what pretty running shots one can get under these circumstances. The first thing is to have a fast, smooth-galloping, quiet, handy horse. Horses learn to stand fire very soon, if you shoot a light charge some distance off at first, and then come gradually nearer; the secret of the whole thing is, never to shoot close past the horse's ears, not, at any rate, until he gets thoroughly seasoned.

It is useless to try to shoot off a horse unless both you and your horse understand "school" riding. An ordinary hunter, ridden in the ordinary hunting style, needing both hands to lug at his head, and requiring half a field to stop or turn him in, is very dangerous at this game.

The horse must turn, change legs, stop dead, and start again under the control of one hand only. A smart polo pony might do, but I prefer something bigger,—about 15.2,—so as to be "more over your work" (the mare in the photographs is sixteen hands), as then one shoots downwards and can often get a shot where it would be dangerous to shoot more horizontally, as towards houses and the like.

A horse that naturally leads with his near leg when allowed to choose his own lead is preferable, as, having to range up on the near side of the deer to shoot, you can shoot better leading on the near leg, as this turns you slightly towards the deer. A horse is smoothest in his natural lead, and is rougher and consequently more difficult to shoot off when leading on the other leg.

I think, on the whole, that it is best to wear the holster as the cowboys do—a belt round the waist and the revolver hanging on the right hip, not in front, as army men carry it. In front it is in the way of your



bridle hand, and it is not so handy to draw; but, worn on the hip, it is also dangerous in case of a fall.

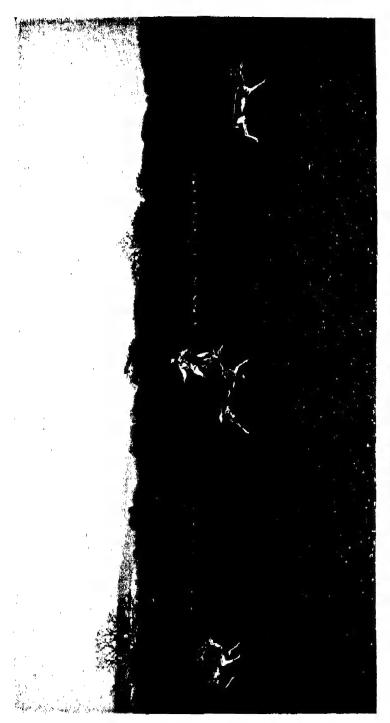
The revolver must fit loosely, so as to draw easily; but the holster must be deep enough, and must hang so as not to drop the pistol out in galloping. The flap of the saddle—where the hunting-horn is carried—is a good place to hang the holster against, but this arrangement might hurt one if the horse rolled over; and when shooting dangerous game, one might be left defenceless by the horse galloping off with the revolver.

The few cartridges necessary can be carried in the right coat pocket; they are awkward to disengage from loops in your belt or wristlet, and are apt to become battered out of shape.

My favourite weapon for shooting fallow deer is the one I have already described more than once,—the old .44 Smith & Wesson, with gallery ammunition. For red deer, perhaps a heavier charge is better: a Smith & Wesson or Colt "police" .38 calibre, full charge. In a park it is important for safety's sake to use as small a charge as practicable.

Nor would I recommend a double-action revolver, as, if you need for any cause to use your second hand on the reins with the revolver in it, a double-action revolver may go off by accident.

It is best to have the revolver in the holster, with one chamber unloaded. Keep the hammer down on the unloaded chamber till the actual moment you want to shoot; and if you do not, for any reason, fire instantly, put it at half-cock at once. I have elsewhere explained how to do this one-handed. If you cannot do it one-handed, on no



DEER SHOOTING OFF HORSEBACK-"ONE, TWO, THREE"

account use both hands; rather fire the shot into the ground at once. If you have the reins in your left hand (with most likely an excited, plunging horse to manage), and try to use both hands in letting down to half-cock, you will, in all probability, let off the revolver by accident.

When you have fired—unless you instantly want to fire another shot—do not cock the revolver, but leave the hammer down on the exploded case.

Never "follow" with your revolver at full-cock, for in the excitement of the gallop, and in the wheeling about, you may, without knowing it, be pointing your revolver in a dangerous direction; or your horse may fall, and you may let the revolver off in consequence.

Red deer generally give a faster and a longer run; and a stag during the rutting season may charge your horse if you range up too close and hustle him too much.

Ride up to the herd at a slow walk, as though you were out for a ride and about to pass them, going so as to pass along the left-hand side of them. If you walk up slowly, not looking at them (but watching the deer you want out of the corner of your eye), you can get up very close for the first shot and will, probably, get a standing one.

When you get up to the herd, unless you at once shoot the deer you want, it is astonishing how soon the one you are after finds out your intentions. The stag, or buck, will push the other deer aside with his horns, keep his head low behind other deer, and always try to keep another deer between himself and you. If you try to ride him down by following him in all his windings through the herd, you will most likely get a fall by one of

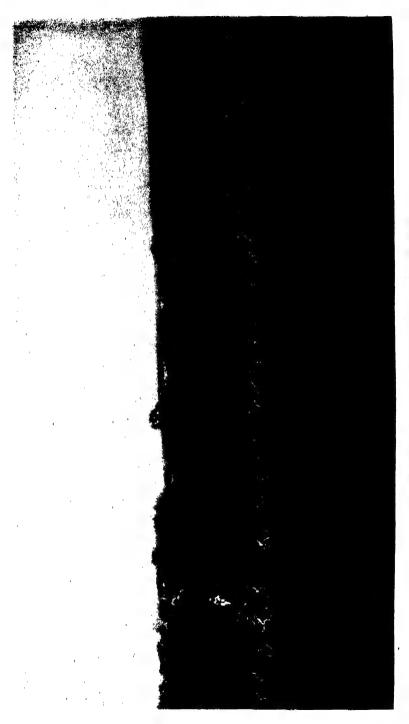
DEER SHOOTING OFF HORSEBACK-BREAKING UP THE HERD

the deer getting between your horse's legs. A horse has no chance in a doubling match with a deer. The easier plan is to get the herd running steadily in one direction, strung out, and gradually get up level with the one you want.

In deer-stalking, if a deer is wounded, it is best to keep quiet out of sight, and not follow him up for half an hour, so as to "let him get sick" as the foresters say; but when shooting with a revolver off horseback, if the ground is at all rideable, or the deer are in a park, it is best to press him as hard as possible; if he is hard hit he will at once leave the herd and then it is a comparatively easy matter to run him down and shoot him. I find that a wounded park-deer hugs the park palings as a rule. This way of shooting is in my opinion a much more humane way of killing park-deer than with a rifle on foot, as a wounded deer is so much more quickly put out of his pain. On foot, a deer may be followed for hours before he can be shot, or perhaps get into a hollow and not be found till next day.

"The Lovat mixture" of grey-green (most people wear too light a grey for deer-stalking) is the best colour for one's clothes if after wild deer, but in a park I prefer white flannels as being cooler, as it is very hard work on a hot August day, and corresponds very much in this respect to a game of polo.

I prefer a short-cheeked, single-rein curb with a loose curb-chain, but the mare Rose (shown in the photographs) has a peculiar mouth and fights a curb, going best in a Newmarket snaffle. With this she is as handy as a Cossack horse, in fact, I hardly have to touch her mouth.



DEER SHOOTING OFF HORSEBACK-OVERTAKING THE HERD

The mere action of leaning back and touching her with the calves of my legs, makes her stop dead. She will shoot off from a stand if I lean forward, and swings round sharp with the pressure of my "outside" leg. She will also (and this I have never seen another horse do) stand close up to a man shooting a rifle in the prone position and not start when he finally fires after aiming for half a minute. Rose understands her business perfectly, and chases almost by herself the deer I want. I do not recommend a martingale if it can possibly be avoided, as it is apt to throw a horse down. If you must have one, a running one is preferable to a fixed one.

Unless you want "meat" very badly, it is much neater to shoot through the neck or back of the head. I do not like the side, brain shot, as if you are the least bit too low you break the poor beast's jaw, and he may give you a long chase, and perhaps go off and die of starvation.

Be careful that your horse does not whip out from under you as the deer collapses, or, as is more usual, stumbles or bounds out to one side in falling, scattering the other deer in all directions. Your horse is also likely to swerve from a dead deer when he smells the blood, on your going up to the deer on foot, and he may jerk the reins out of your hands and gallop off.

After one or two such shots, the herd will get on the run; then, keeping on the inside of the circle as they race along, press them fast, so that they get strung out; never mind about getting a shot; first endeavour to get them well strung out, so that if you make a miss you do not hit another. If you can break them up into several lots by riding through them, and thus get the deer you want in



DEER SHOOTING OFF HORSEBACK -"RIDING OUT" A BUCK

a small lot, so much the better. Then, when you have your special deer galloping well clear and moving steadily and evenly,—as he will after he becomes a little tired, -put your horse on the near leg in his gallop, driving him well up into the bridle and collected for an instant turn; gradually edge as close to the deer as you can; with care, you can get within ten yards, both horse and deer going on a good fast canter. If the horse is a very smooth galloper, you can sit well down in the saddle; if he has high or rolling action, stand in the stirrups, but a rolling galloper is very unsatisfactory for this work, and, aiming with a straight arm, swing either forward on the deer's neck, or-neatest shot of all-between his ears at the back of his head. Of course, this must be a "snap" shot: you cannot hold your sight. Be careful not to hit his horns, or the bullet may glance off on your horse or yourself. If he is hit behind the ears properly, he turns over like a rabbit, and you flash past him before you can stop; and nothing remains but to pull up, dismount, and "gralloch." This shooting is for the most part done rather by "sense direction" than by any attempt to align the sights.

If you want more deer, you can take, in a few seconds, one after another in this way, without stopping your horse.

If the buck is hit in the neck, he will, most likely, lurch to one side, often coming round in a semicircle before falling; and you must be very careful he does not then put your horse down, or, if you are full-cock for another shot, make you shoot your horse.

One of the advantages of shooting with the horse leading with the near fore is that at the shot, or a "charge,"

DEER SHOOTING OFF HORSEBACK-"A RIGHT AND LEFT "

you can wheel to the left and get clear. The old "buffalo-runner" horses were taught to turn sharp to the left at the report of the shot, so as to avoid a lurch or a "charge," without any hint from the rider.

If you try to get up too soon for a shot when the deer are running, or come up too abruptly or too fast, they will begin bounding in the air; but if you are cautious you can, after some galloping, even stop and stand on the inside of the turn, and they will slacken and trot past you, or stop and stand preparatory to wheeling back; though in this case they will almost invariably start off again as you raise your arm.

When galloping alongside a deer, unless there is another in front of him to lead him on, he may whip back; it is always best to let a few hinds or does keep in front of the beast you wish to shoot. They will keep him moving more steadily, and you will know the direction in which he intends to travel, as he will follow the others.

The revolver is very handy for roe-stalking, as you generally get close shots in covert. A revolver is also very useful to wear when in a deer forest. As everyone knows who has done much stalking or deer driving, there are occasions when a wounded stag is too active to "stick," and yet to shoot would disturb other deer. In this case, a revolver with a gallery charge is much less apt to move other deer than a rifle-shot, especially if you stand with your back in the direction in which you do not want the sound to travel, and place the muzzle of the revolver close to the deer so as to deaden the sound of the explosion.

In shooting at game—in fact, in all revolver shooting other than target competitions—it is best to aim high

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or low according to distance, rather than to alter the sights for different ranges.

Those who use a conical bullet for park-deer should give the preference to an "express" or hollow-pointed one as being less likely to glance off a tree, no small advantage in a populous neighbourhood with facilities for accidents.





SHOOTING OFF HORSEBACK-CHARGING

CHAPTER XXV

TARGET SHOOTING OFF HORSEBACK



Y instructions as to the sort of horse to ride and how to ride him, given in the remarks on big-game shooting, also apply to target shooting off horseback. When shooting off a standing horse at a stationary mark, turn the horse facing to the left at an angle of forty-five degrees. This is to prevent his flinching at the shots, as any but a very seasoned horse would be sure to do if you shot

straight over his head or close past his ears. Also, if he were to toss his head when you were shooting over it, you might both kill him and get either a rearing backward fall, with the horse on top of you, or else a "purler" over his head. If the horse shies away from the outstretched arm, tie a handkerchief over his off eye, as the bullfighters do, until he is accustomed to the noise and flash.

There should be a bar in front of the horse to prevent his getting closer to the target than the distance for which the match is arranged; but if the bar is low, and the horse a good fencer, he is apt to jump at the bar. It is very difficult to get a horse to keep absolutely still, and for that reason it is often more difficult to shoot when the horse is fidgeting than when he is swinging along in a gallop.

For shooting on a gallop or canter, children's balloons, put up on the "heads and posts" principle, are very good marks, as they can be shot at with wooden bullets, shooting alternately to the right and left. I can also recommend a target on the principle of the Bisley "running deer," travelling on rails parallel to a railing, on the other side of which the shooter gallops and which prevents his getting too close to the target.

Firing blank ammunition at "lightning paper" stuck in the cleft of a stick is very good practice, and is, moreover, less dangerous to spectators. The paper flares up on being touched by burning particles of powder, but of course the shooting must be done at a distance of a few feet only.

I do not think there is much advantage in cantering too slowly; the speed at which the horse goes smoothest, without raking or boring, is the best.

For practical purposes, shooting behind one, when galloping, is useful. This is, I think, best practised with blank ammunition at the lightning paper, as with bullets it would be too dangerous. It is an assistance, when first learning, to catch hold of the pommel of the saddle with the bridle hand as you swing your body round to fire. When shooting alternately to right and left, be sure to lift the muzzle of the revolver clear of the horse's head as you swing it from side to side, or you may shoot your horse through the head, if he should happen to toss it at that moment.

With modern, high-velocity, nickel-jacketed rifle-bullets, it is useless to try sheltering yourself behind the body of your horse when being shot at with a rifle; but against a revolver-bullet it may be useful. To do this, catch hold of the horse's mane with the bridle hand, sink your body down along his neck on the side farthest from your adversary, and shoot at him under your horse's neck as you come quartering diagonally towards him. A tall man on a small horse can get very well round the horse's neck. As you pass, you can take a parting shot diagonally behind you under your left arm past your horse's quarters without shifting your position.



CHAPTER XXVI

SMALL GAME SHOOTING



NE can get much amusement out of a revolver, or single-shot pistol, at small game or vermin. (I beg that you will not shoot cats; they are my special pets, and as I am doing my best to instruct you in revolver shooting, you might do me the favour of sparing them.)

Rabbits lying out are generally too long shots for the revolver, but the weapon can be used in ferreting where there is no danger from the bullets. In waiting for rats, or shooting grouse or black game in a deer forest where the noise of a shot-gun would disturb the deer, it is useful. I once shot with my revolver a wild duck skimming over a lake.

The smooth-bore revolver, used with shot, is useful for thinning off small, mischievous birds in a garden where a revolver shooting bullets would be dangerous; but it has not power enough for any but the very small birds.

At the beginning of the last century it used to be considered a great performance to have "hit a swallow on the wing with a duelling pistol"; and the feat was always held up as a proof of extraordinary proficiency with the pistol. As a matter of fact, besides being a piece of brutal cruelty, it required no skill at all. method of procedure used to be to go up into a belfry, or other place where swallows nested, to find a nest with young ones, then to hold the pistol with both hands, steadying the barrel against the side of a window or opening in the tower, the muzzle pointing at the mouth of the nest and only a few feet, or even inches, from the nest. When one of the old birds came home with food for the young and fluttered for a moment, hovering at the mouth of the nest before going in, the pistol was fired, and the great feat accomplished!



CHAPTER XXVII

PIGEON SHOOTING WITH THE PISTOL



NCE, as an experiment, Gastinne Renette, the Paris gunmaker, made me a duelling pistol with an interchangeable shot barrel, .32 bore, ten inches long; shooting & ounce of shot, and 1½ drams black powder. This shoots wonderfully well. At twelve yards it makes with No. 8 shot about the same pattern as a 12 bore cylinder gun

at forty yards with No. 6 shot.

I tried it at pigeons, twelve yards rise, three traps, and got forty-four out of eighty. I had a man with a gun, to kill any hit birds which flew out of bounds. I found I could kill all, or almost all, crossing shots and incomers at least as well as I can with a gun. One bird coming straight over, which I shot leaning backwards, just as it was past me, was a shot I do not think I could have made with a gun.

Those going fast straight away I could not, owing to the small charge, account for very well. Most of my "lost" birds were of this description; most of them

"feathered," but were not hit hard enough to stop them within bounds; and the scout shot them. The forty-four I scored were not shot at by the scout, but killed fairly with the pistol alone.

I should think such a pistol would be very good for sparrow or starling shooting out of traps.

I have not tried a smooth-barrelled revolver with shot at pigeons, as I do not think it would have enough pellets or enough penetration; for sparrows it might perhaps suffice.

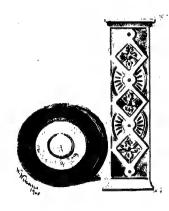
In this sort of pigeon shooting the arm must be held straight, and the pistol pointed just below the middle trap; the eyes must watch the traps, not the sights, and, as you follow the bird with your eyes, the pistol must be brought up as for Bisley rapid-firing or traversing targets, according as the bird is going straight or crossing you.

With a shot-gun you must have your stock the proper length, bead, cast-off, etc.; with the pistol, if you keep your arm straight, nature has provided you with a "stock" of flesh and blood exactly your proper fit.



CHAPTER XXVIII

CLAY-PIGEON SHOOTING WITH THE REVOLVER



Γ is useless, unless you are an exceptionally good revolver-shot, to try to shoot clay pigeons out of the ordinary traps with a revolver. For shooting with a bullet, they go too fast; and for the shot-revolver, they are out of range too soon. The best way is to have them thrown over your head from behind and hit them as they skim

overhead; but you must generally use shot, as bullets would be dangerous, under ordinary circumstances, fired into the air. If, in this style of shooting, the trap throws a weak "saucer," the latter may hit you a nasty blow.

My way of shooting clay pigeons is either to have them bowled down-hill from beside me, which gives very good practice for shooting at with a bullet,—it is too easy for shot,—or else to have a trap which throws discs straight up.

One of my traps has a horizontal cylinder which contains clay discs; these are pressed close against one end of the cylinder by a spiral spring. A lever, which flies up

by a strong spring, is kept down by a string held tightly by an assistant who stands behind me. When the word "Pull!" is given, he loosens the string, the lever is released and flies upwards through a slit in the end of the cylinder, throwing the disc straight up in the air, to the height of about ten feet, out of an opening at the other side of the cylinder. The end of the cylinder is towards you, so that the discs also are thrown with their flat sides towards you. This gives one a nice shot for the bullet, as it has to be taken just at the highest point of its flight, and teaches one to "snap." When the lever is pulled down again, the spiral spring in the cylinder drives the group of discs forward, putting the next in rotation over the slit, to be thrown in its turn. There is no necessity for the "trapper" to go forward. He merely keeps pulling the lever down and releasing it until the cylinder is emptied of its discs, and you can shoot as fast as you please.

Another way is to have the old-fashioned Bogardus trap, which throws glass balls, or, better still, composite balls, as these do not mess up a lawn so. These are rather harder to hit than the objects I have just described, as they do not come up quite vertically, but in a parabola. They are therefore more suitable, perhaps, for the shot-revolver.

The advantage of "saucers" for practising quick revolver shooting is that there is no cruelty in it; although there was an old lady who said that the poor clay pigeons suffer just as much as any other breed.

Shooting at a tin can laid on the ground and keeping it hopping by shots just under it is a favourite shooting trick. A child's rubber ball hung by a string gives a great

variety of sporting shots, if kept swinging by hitting, or if started rolling down a hill.

Clay pigeons also make good marks stuck on sticks at unknown distances and "snapped" at.



CHAPTER XXIX

SHOOTING IN SELF-DEFENCE



HIS chapter is written entirely from the technical point of view as a branch of revolver shooting, while the legal aspect of the question is treated by law experts in the Appendix. Whether there is justification, even in self-defence, in killing anyone is another matter. Fortunately, however, in the great majority of cases, the object of

protecting oneself—or, what is more important, protecting someone else—is attained without actually shooting. The mere fact of being armed is generally sufficient, and in many cases wearing the revolver openly or having it in one's hand, even unloaded, suffices. As Polonius says: "Beware of entrance to a quarrel, but being in, bear't that the opposed may beware of thee." But, if shooting has to be done, everything depends on getting the first shot.

As I said above, I am *not* dealing with the ethical aspect of the case; and, putting *that* aside, if you can take your adversary unawares, and "get the drop on him" before he gets it on you, you have a great advantage.



A short-barrelled revolver is best if it has to be concealed, but of as big a calibre as you can carry without its being too bulky and showing in your pocket. If there is

no necessity for concealment, carry one six inches in the barrel.

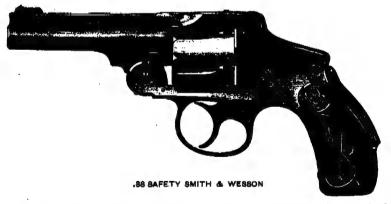
Some prefer a large-bore army revolver, with the barrel cut down to two inches. I am assuming that the shooting will be done at a distance of only a



am assuming that the MECHANISM OF THE SMITH & WESSON HAMMERLESS SAFETY REVOLVER
shooting will be done A. Safety Lever; B. Safety Catch; C. Hammer; D. Trigger; G. Safety Latch Spring

few feet, and without aim in the ordinary sense of the word.

As elsewhere explained, it is very dangerous to carry an ordinary revolver loaded in the pocket, even at half-cock, especially if it be a self-cocker.



The proper way (unless a "safety revolver" is carried) is to leave one chamber unloaded, and lower the hammer on that empty chamber. The revolver here described obviates these risks.

This is the Smith & Wesson .38 calibre safety hammerless pocket revolver. This revolver cannot go off accidentally, even when all the chambers are loaded, as there is a safety catch which prevents the revolver being discharged unless it is pressed at the same time that the trigger is pulled.

Anyone used to revolver shooting, who holds this revolver as I have described in my instructions for revolver shooting, and squeezes the trigger, will be able to shoot without thinking of the safety catch, for he presses it unconsciously in gripping the stock. A person not accustomed to a revolver cannot, however, fire it: in fact, if a man not an expert revolver-shot wrested the revolver from you, it would be harmless in his hands against you. Indeed, the pistol could without danger be given, loaded, to a small child to play with, as it requires a stronger grip than a child's to discharge it.

Most revolver accidents occur either from the hammer receiving an accidental blow, slipping from the thumb, catching in something, or from the trigger being touched unintentionally, or the revolver being left at full-cock.

In the Smith & Wesson safety revolver all these causes of accident are impossible, and it is always ready for instant use. Its further advantages are:

- 1. There is no external hammer to catch in anything.
- 2. Pressure on the trigger cannot discharge the revolver unless the stock is properly grasped at the same time.
 - 3. The revolver cannot be kept at full-cock.
- 4. Being hammerless, and having no projections, it can be drawn more quickly than an ordinary revolver.

5. It can be carried with absolute safety loaded in the pocket, with the knowledge that a fall or blow will not discharge it.

This revolver is also made in smaller calibre (.32), with both 3 in. and $1\frac{1}{2}$ in. barrel. In the latter case it is called a bicycle revolver, and takes up less room in the pocket.

This calibre might be better for a lady's use; but for a strong man I prefer the larger calibre, as being more powerful.

I have before said that I object to double-action revolvers on the score of inaccuracy, but this refers to target and game shooting; for self-defence at a few feet off these objections do not apply, as extreme accuracy of aim is not so important, and quickness is everything.

Besides this, the cocking by trigger action in this revolver is so arranged that it can, with a little practice, be held at full-cock whilst the aim is taken, instead of the cocking and firing being a continuous action, as in other double-action revolvers.

Carrying the revolver in the hip pocket is in my opinion a mistake, as the movement of putting back the hand to draw will instantly put an adversary on his guard and most likely draw his fire.

For a case where you are likely to be robbed, the inside breast-pocket (where bank-notes are usually carried) is a good place for the revolver, as, when you, are asked for your money, you can appear to be taking it out of this pocket whilst you are really drawing the revolver; or the revolver can be shot from this pocket without drawing it.

Usually the right-hand side-pocket of a jacket is the

handiest, or, rather, the pocket on the side of the hand you can shoot with best.

Shooting through the pocket is as quick and unexpected a way as any; another is to turn partly away, and in doing so draw and fire from behind your back, or under your other arm.

But, assuming that you would prefer, if possible, to capture your assailant without shooting him, try whether you cannot unexpectedly "get the drop" (i. e., an aim) on him, and make him hold up his hands before he can draw his revolver.

As in fencing and boxing, the great thing is never to take your eyes off your opponent's for an instant; and if by any subterfuge you can induce him to take his eyes off you, or distract his attention to anything else, then is the time to "get the drop" on him, or, as a last resource, to shoot.

Knocking a chair over, throwing something past or at him with your non-shooting hand, or calling out to some imaginary, or real, person behind him may often have the desired effect.

If he is a really "bad" man, and armed, the worst thing you can do is to take a revolver in your hand—or even make towards it—unless you mean to shoot instantly; it will only draw his fire, or he may unexpectedly disarm you in the way described below.

Supposing you are unarmed and your adversary has a revolver, you may be able to render his weapon harmless by ejecting his cartridges.

The way to do this varies with different makes of revolvers, but the principle in each case consists in making a downward stroke on the barrel of his revolver with one of your hands, and in the same movement operating the opening catch or lever with your thumb.

If you get an assistant to take an empty revolver and point it at you, and you practise this trick, you will find it very simple and effective, but of course there would be no use in trying it with an adversary who suspected you were about to do so. The Smith & Wesson Russian Model can be rendered harmless by seizing the middle of the barrel with your thumb under the catch, you being to the left and using your right hand, or vice versa. Simultaneously with seizing the revolver give a quick quarter turn to your wrist to the right, and all the cartridges will fly out.

With the Webley, you place your thumb OVER instead of *under*, the catch in seizing the revolver, and press your thumb towards the palm of your hand in making the wrench.

With solid frame revolvers, like the new Colt and Smith & Wesson, you operate the catch, and instead of twisting your wrist you push out the cylinder with your first and second fingers, at the same time pushing the extractor plunger with your little finger, but this make of revolver is much more difficult to disarm suddenly than those I have named above.

With any hammer revolver you can make it harmless by slipping your thumb under the hammer, or, if you are strong in the grip, by holding the cylinder and preventing it revolving after the first shot is fired.

I saw a very good suggestion in an article in an American paper—the writer's name I unfortunately forget—to

the effect that it was an excellent thing, when expecting "trouble," to wear a big revolver ostentatiously and to have a smaller one in your hand, concealed under a cape, or otherwise; your adversary would think himself safe as long as he watched your big revolver and saw that you had not put your hand near it, whilst all the time you would be ready to "hold him up" or shoot with the other revolver, the existence of which he would not suspect.

If a burglar is in your house, do not carry a candle, as that makes you an easy target in case he should try to shoot at you. The iron rails of banisters, especially if they are wide, ornamental ones, are a good protection. A door is of no use (except for concealment before the man has seen you), as a bullet with an ordinary charge will go through it.

Use a light charge (gallery ammunition by preference) for house protection, or you may shoot some of your family through a thin wall when "burglar-potting."

Out-of-doors, too, a lamp-post, or other narrow object, will spoil a man's aim by making him try to hit that part of you which shows on either side instead of his having your full width to aim at, even if it is too narrow or small fully to protect you.

It is better not to try to give him a small mark to aim at by standing sideways, as then, if he hits you, he will rake all through your vitals; whereas, if you are facing him squarely, he may put several bullets into you without fatal effect. Holding your bent arm across your heart, and at the same time protecting your temples with the side of your revolver,—which duellists do directly they have fired,—may be of some use; but it is better to de-



POSITION FOR SHOOTING AT AN ADVANCING OBJECT

pend upon hitting your adversary before he hits you. If he shoots and misses you, drop at once, as if hit, and he will probably pause and give you a chance to shoot.

If a man does not look desperate and capable of continuing shooting till he is killed, if you can break his shooting wrist it may be sufficient; and if he should try to shift his pistol from the disabled hand to the other, you can break that also.

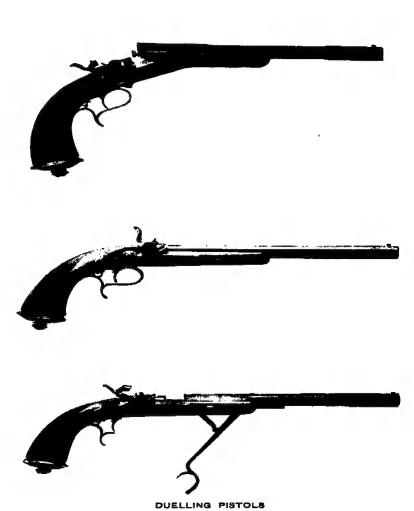
Should you be mounted and your adversary afoot, jumping off and sheltering yourself behind your horse will protect you from a revolver-shot; also galloping hard at him and shouting may spoil his aim; but if he is cool he may take an easy shot at you when you are past and before you can turn.

If a man is running away from, or coming at you, and has no firearm, you can make him helpless by shooting him in a leg; a long crossing shot in a bad light would make the leg shot rather doubtful, unless there be time to have several tries.

If a man absolutely has to be killed, it is better to shoot where the white shirt shows in evening dress. This is a bigger mark than the head, and he may, moreover, duck his head as you pull.

The stomach shot is a murderous one, and would not be justifiable except under very rare circumstances. A charging man at very close range would have the wind knocked out of him, and be stopped perhaps more effectually by this shot than any other.

If your opponent is a bad shot, you can take a longshot at him from a distance, say 120 yards, at which, if he has a cheap revolver, he cannot hit you except



(By Gastinne Renette)

by a fluke, and it would not do much harm even if he did hit you.

In fact, a bad shot armed with a revolver is less dangerous than a strong, determined man with a knife. It must be remembered that a knife can be thrown some distance, so it does not do to let a man with one in his hand, or even suspected of having one, come too close.

A cartridge loaded with salt is a good man-stopper for burglars and has the advantage of not endangering life, but of course it is of no use against a determined man unless he is shot in the face; and in that case salt would do even more damage to his eyes than a bullet, and a bullet would be a more merciful load.

The pamphlet on Self-Defence to which I alluded in the Preface, says that to put the revolver beside the head of the bed, or under the pillow, is to court being disarmed during your sleep, and recommends having it between the mattresses, handy to your reach, or in a padded bag hanging at the side of your bed under the sheets, the object of the padding being to prevent the revolver making a noise against the bed when you are drawing it.

This is all very well if you remember to take out the revolver each morning; if you forget, and the housemaid makes up the bed roughly, there may be trouble.

It also advises rolling under a bed or sofa as a precaution when exchanging shots.

Make sure that nobody can tamper with your revolver or cartridges. I knew of a case in which a muzzle-loading revolver was kept loaded in an unlocked box at the side of the bed. When there was a burglary in the house, this revolver was found to have been dipped in water and thus rendered useless!

Duelling being a branch of self-defence, although a single-shot pistol is generally used, I will briefly notice it.

The usual duelling conditions are these: The director of the duel, seeing that the two duellists are ready, commands "Attention!" Then, after a short pause, he says deliberately, "Feu! Un! Deux! Trois!" halting about half a second, or rather more, between each word, according to the seriousness of the duel. The men have the right to shoot from the very moment he utters the word "Feu!" but it is forbidden, under penalty of disqualification, to fire after "Trois." The usual distance is twenty-five metres. The principals stand facing each other, or else back to back, and wheel at the word "Feu!"—but it is very rare for the latter form of duel to take place.

Where the ducllists face each other, my instructions for the first shot in the Bisley "rapid-firing" series apply (as the great thing is to hit your opponent before you are yourself hit), aiming to disable, or kill, according to the gravity of the insult or the vindictiveness of your opponent. If you only desire to wound him, fire low at his legs. In some cases it would be useless to "wing" your adversary, as he would fire at you all the same.

Where the parties have to wheel and fire, you bring up your revolver on the same principle as in shooting at the Bisley "traversing target," swinging from the hips and turning on your heels at the same time. The instant your front sight is approximately in the centre of the "U" of the hind sight, fire, as that is enough horizontal

accuracy for such a wide bull's-eye as a man, and you need not trouble at all about your elevation, as your adversary is at least five feet high, instead of the two inches of the bull's-eye on a target at that distance. By ignoring elevation, you gain at least half a second on a man who tries to get both elevation and lateral accuracy, and you ought to be able to get off your shot the instant the word "Feu!" is uttered by the director of the duel.

Shooting at a "bonhomme" with a clay pipe in its mouth at Mont d' Or, I found one could generally break the pipe before the word "Deux"; and I won a match against a French gentleman with revolvers, under duelling conditions shot as recommended above, as well as two medals at Gastinne Renette's gallery.

In all shooting with duelling pistols, it must be remembered that the trigger-pull is much lighter than the regulation Bisley revolver-pull, and there is no necessity to begin squeezing the trigger before "coming up"; and there is, therefore, very little tendency to "pull off" to one side, but there is, of course, the danger of firing too soon as you swing round, a danger that particularly concerns onlookers when you practise, and the stock is straighter and the sights lower.



CHAPTER XXX

REVOLVER SHOOTING FOR LADIES



REVOLVER puts the weakest woman, who is a good shot, on an equality with the strongest man. It is especially suitable for ladies to defend themselves with, as they have, as a rule, steadier hands than men, and there are certain revolvers, just suited for ladies, which give no recoil, and yet are practical

weapons. "U. M. C." gallery ammunition in a big .44 calibre Smith & Wesson Russian Model, gives practically no recoil, and I have seen a lady do very good target shooting with it. With this revolver and load I have killed three rabid, or alleged rabid, dogs, so it is a practical killing load. I use the same revolver and ammunition for shooting park bucks.

Every lady should, to my mind, know how to use a revolver. She may at any time be in China or some other country where there are savage natives; and there is none of that danger of bruising the body which is so harmful to ladies using guns or rifles.

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The Smith & Wesson hammerless safety revolvers of .38 and .32 calibre are especially suitable for self-defence for ladies; but I should not recommend a lady to use these or any other short, light self-defence revolvers unless it be actually necessary, as the recoil is heavy and apt to hurt a lady's hand (particularly between the first finger and thumb) and tear the skin. This is inevitable in a revolver made as light and as portable as possible, and expected, nevertheless, to shoot a very heavy charge.



The best plan is to fire a few shots (the hand being protected with a thick driving glove, from which the fore-finger has been cut off), or, better still, ask a good shot, who also knows your "sighting," to do so for you, just to get the sights filed right, and then keep this pistol for self-defence only, and do practising and competing with a more accurate and more pleasant shooting weapon.

The revolver to be used for practice and in competitions must depend upon your physique. If you are moderately strong, I think the .44 calibre Russian Model Smith & Wesson, with the Union Metallic Cartridge Co.'s gallery ammunition, is as good as any; or, if this is too

heavy, the .38 or .32 calibre Colt and Smith & Wesson revolvers, with gallery ammunition, are very good and are specially intended for the use of ladies.

The Smith & Wesson .32 calibre in .44 calibre frame, which I like for fifty-yards target shooting, is rather heavy for a lady. Its size is an advantage for a man, as he can hold steadier with some little weight in his hand. Ladies who are of slight build may find it too heavy; but with gallery ammunition it has no recoil whatever, which is a great advantage for ladies.



Always have a barrel not shorter than five inches, and not longer than six inches, and save the weight, if you want a light weapon, in the general make-up of the revolver, not in length of barrel, as you lose so much accuracy with a three-inch or four-inch barrel that it spoils any pleasure in shooting.

If you confine yourself to light ammunition, you can get a very light revolver which is safe with *that* charge, and has no recoil to speak of.

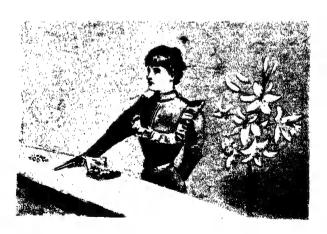
The Smith & Wesson, which has interchangeable barrels of .32 calibre for revolver, and .22 for single-shot pistol, is a very suitable weapon for a lady.

The lighter forms of single-shot Stevens pistols of .22 calibre are exceptionally well adapted to the use of ladies who prefer a single-shot pistol.

In mentioning particular firms, both here and elsewhere in this book, I must not be understood to mean that the weapons of any one maker are better than those of another. All first-class makers turn out good revolvers and pistols; and I merely mention those revolvers and pistols which I have used and am personally acquainted with, and which I find answer my requirements.

A lady can carry a revolver hidden for self-defence in many more ways than a man, owing to her draperies affording more places for concealment. Cloaks, capes, etc., make good hiding-places for a revolver; inside a muff is about one of the best places; and a small revolver in the right hand, inside a muff, that hand hanging down by the side, is ready for instant use. As ladies often carry their muffs in this way, it does not arouse suspicion.

It is very important for ladies to protect their ears when shooting.



CHAPTER XXXI

SHOOTING FROM A BICYCLE



ORTUNATELY, in this country there is no necessity to carry a loaded revolver on a bicycle. An empty one is sufficient to frighten away tramps, if they stop you on a dark, lonely road; or even a short bicycle pump when pointed at them will scare them off.

One can, however, get some sport out of a revolver on a bicycle.

I have described in the chapter on Self-Defence one form of bicycle revolver; but for sport I should use a game-shooting one, as a bicycle revolver is not meant for anything but self-defence at short range. This latter would have to be carried in a holster strapped on the front fork, a method which is safer in case of a fall than being worn in a belt.

One can, with a little practice, shoot quite well off a bicycle, especially if, when actually aiming, the cyclist has his feet on the foot-rests, or is "free-wheeling." The action of pedalling spoils one's aim.

A dog flying at your leg, when he comes up in his usual pleasant way from behind to bite you in the calf, would make a pretty shot; you could put up the leg he is going for and shoot down past your thigh, but you

might hear from his owner if he should happen to be in sight.

A cartridge loaded with coarse salt(as I have recommended for burglars) would stop a dog well and teach



SMITH & WESSON BICYCLE REVOLVER

him not to annoy cyclists; but then, in all probability, you would have not only the owner after you, but the Society for the Prevention of Cruelty to Animals as well.

A bicycle gives one many good chances at deer, hares, rabbits, etc., in the early morning or evening, when going silently along by a river in a game country.

With a Gastinne-Renette pistol, shooting shot, or a .22 single-shot pistol one could get lots of small game; but I must not go on, or this chapter will resolve itself into hints to poachers!

The weak point of the revolver as an arm for cyclists in war is the difficulty of shooting at pursuers. A horse can be left to pick his own way, but a cyclist who looks behind him is apt not only to lose his balance, but run into something, and has also to slacken his speed, unless he merely blazes away behind him at random without either sitting up or looking back.



CHAPTER XXXII

REVOLVERS FOR THE POLICE



HAVE on several occasions attempted to get a prize accepted, to be competed for by the police, at Bisley, but each time unsuccessfully.

I then gave a statuette, modelled by myself (shown in the initial letter heading this chapter), as a revolver prize, open to the whole of

the United States. The conditions were:

Any revolver; maximum length of barrel, including cylinder, ten inches. Any trigger-pull. Any sight, both sights to be on the barrel or forward of the grip of the pistol hand. Any fixed ammunition. Cleaning allowed only between scores of six shots. Distance, twenty yards. Position, standing, free from any artificial support, the revolver held in one hand only, with the arm free from the body and unsupported in any way. The rear sight not to be nearer to the eye than twelve inches.

Target.—Ready-measurement discs, one shot on each disc, and the measurement to be taken by mechanical Vernier scale, from the centre of disc to the centre of shot-hole.

Scores.—Aggregate of best three in five scores. Each score to consist of sir consecutive rounds. The five scores to be fired consecutively.

Amateur Standing.—The standing of a contestant as amateur and professional to be determined in each individual case by *Forest and Stream* (this paper had charge of the competition).

Where not in conflict with the conditions herein, the rules of the Massachusetts Rifle Association for revolver competitions to hold. The decision of *Forest and Stream* to be final on all points.

Any winner of the trophy shall hold it, subject to a challenge, for the term of two years, after which it shall become his personal property. Upon receiving a challenge, the holder shall agree with the challenger upon a place and date for their meeting not later than six weeks from the receipt of the challenge, of which meeting at least two weeks' notice shall be given through *Forest and Stream*, and the shooting at said meeting shall be under the same conditions as the original competition for the trophy. In case of a failure to agree upon a time and place of meeting, they shall be fixed by *Forest and Stream*.

The trophy shall be deposited in the custody of *Forest and Stream* at least one day prior to the challenge meet; and, if required, holders must give bonds to *Forest and Stream* for its safe return.

The holder shall not be required to accept a challenge pending the determination of a challenge shoot already under date. In case of any dispute about the right of priority in shooting challenges, Forest and Stream shall determine the order of shooting. All expenses of targets and gallery will be borne by Forest and Stream. Contestants will defray all other expenses.

This was a great success, and revolver-shots in most of the great cities of the United States competed for the trophy, which was held by Dr. Louis Bell, of the New York Pistol and Revolver Club, for the first time. The trophy passed to two successful challengers, and finally became, in 1894, the property of Roundsman Petty, of the New York police force, who twice successfully defended his title.

The police of the United States were so pleased with this competition, that it is now the custom in some cities to have regular competitions for the members of the force; and many others besides Petty have become fine shots in consequence. Petty, however, was always a good shot.

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People say: "Oh, if a policeman had a revolver he would be likely to shoot a man instead of arresting him." In my opinion, it would make a policeman less apt to hurt his man; and one would not hear so much of policemen being knocked down and kicked to death. If the policeman were known to be armed with a revolver, and had the "marksman's" badge on his uniform, it would have a salutary effect on roughs, who would think twice before attacking him; and he, in the confidence of his skill with the revolver, would act calmly, and shoot only as a last resource.

Only quite recently there was a report of a mad dog in a crowded street of New York. The policeman on the beat killed it at the first shot, and did not hit anyone in the crowd.

If a London policeman started "loosing off" a revolver in a crowd, I fear the ambulance corps would be kept busy!



CHAPTER XXXIII

THE REVOLVER IN WAR



NFORTUNATELY this, and not target shooting, is the chief use for revolvers up to the present time.

As I am not a military man, I cannot go as fully into details as I have done with regard to some of the other uses of the revolver; but I should say, speaking as a civilian, that the nearer the re-

volver approaches to that recommended for big-game shooting (whilst fulfilling the necessary military requirements and regulations), the more useful and reliable will it be found.

My hints as to shooting deer, or at targets, from horse-back, would apply to chasing drivers of retreating guns, or infantry; and my various suggestions for practising rapid firing at moving objects would also apply. The episode, already related, of the officers in the present campaign repeatedly missing store bullocks with their revolvers illustrates the need of practice with this arm, which not even an acquaintance with the rifle (even

SHOOTING ON HORSEBACK-PURSUING SHOT



supposing the officers to have such) enables one to dispense with.

It is useless to describe in detail the various patterns of revolvers used by the different nations, as these not only constantly change, so that any I may now write about may be obsolete by the time this book is published, but each nation has also its special needs, so that the revolver suitable for one country might not be the best for another.

For instance, in England there seems to be a greater



demand for a revolver with "stopping power" than in any other country. In consequence, various more or less blunt-nosed bullets have been invented, some of them almost cylinders with cupped tops. Very good shooting is said to have been made with some of these shapes of bullets: personally, though it may be only fancy, I do not think bullets of such shape can fly quite as accurately as those which are pointed, although I have done good shooting with them. Anyhow, I myself have never been able, in experimenting, to improve on the conical shape for extreme accuracy.

The consensus of opinion, however, in all armies seems now to be in favour of very small calibres, as the advantages of a small calibre over a large one in portability, lightness, and amount of ammunition that can be carried are so great that it is considered to outweigh the want of stopping power, and, anyhow, a man who cannot hit another in a vital spot at the short range at which a revolver is used in war would not do any better with the larger calibre.

I do not think that the advantages of a revolver over a sword, or even lance, for cavalry are sufficiently appreciated. Going on the standard of the "Can't-hit-a-hay-stack" shooting of the ordinary trooper with a revolver, it is not realised what a squadron of cavalry, which could "shoot," might accomplish with this weapon. In charging, which I suppose would very seldom occur in modern warfare, each man could fire several shots at opposing cavalry; whilst their adversaries, if cavalry, with only lance and sword, could not have a "go" at them till they got within a yard or two. A lancer, and, in a lesser degree, a trooper armed with a sword, needs elbow room to wield his weapon; when hemmed in by companions pressing close in on him, he cannot use it. An adversary can, moreover, parry, or even clutch, the lance, and then he is quite helpless.

A trooper who was through the Zulu campaign told me that many of the men in his troop threw away their lances and depended on their revolvers in a charge, as Zulus dodged their lances and seized their horses, whereas a revolver cleared the way in charging.

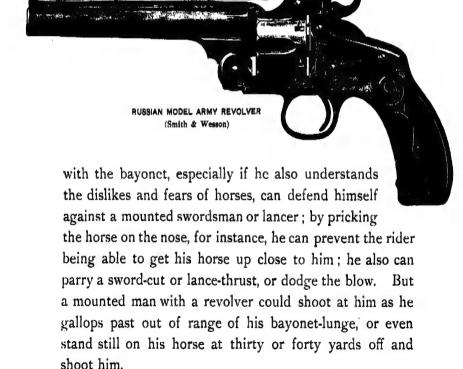
In hand-to-hand cavalry fighting, the man with the revolver would have the lancer or swordsman absolutely



SHOOTING ON HORSEBACK-RETIRING SHOT

at his mercy, and as for pursuing, the little bugler-boy in South Africa has shown what can be done with a revolver. From the standpoint of the pursued, a man with a lance is helpless, and a swordsman is almost as helpless; but a man with a revolver can keep loading and shooting back at his pursuers all the time he is galloping away at top speed.

An infantry soldier, if active, cool, and a good hand



I believe that the cavalry on both sides in the United States Civil War made more use of their revolvers than of sword or lance, and the revolvers routed the lances.

A revolver needs much less physical strength to use

than sword or lance, and is no more difficult to learn to use. Lances, besides, are so conspicuous when cavalry are trying to conceal themselves, and are useless among trees.

Artillery drivers are especially helpless when pursued, yet if properly taught they could use a revolver whilst driving their horses, and prevent the incident I have depicted below, which is founded on fact, though I have, for reasons that are obvious, used fancy uniforms.



CHAPTER XXXIV

KILLING DISABLED ANIMALS

NYONE can, for a humane purpose, kill a horse which has become injured, on the spot, without a license of any kind. I mention this, as many persons would keep a horse waiting whilst a

knacker is sent for, under the impression that they may not legally kill it themselves.

For a small animal, unless you are an exceptionally good shot, and can be quite sure of putting the bullet right through its brain, I think a charge of shot in the head at close range with a gun is the least likely to cause suffering, as it is also the speediest.

For a horse, I should not advise gallery ammunition out of a revolver. His skull is so thick that the bullet might glance off or not penetrate.

Where possible, do not use a short-barrelled self-defence revolver, but one you can rely upon for extreme accuracy.

There are several vital spots in a horse, the one to be selected being that which you think, all things considered, that you can utilise without bungling. The heart is out of

the question, as, even though shot right through the middle of it, such a big animal may live some time after being hit. Right between the ears from behind (where the wounded horses in bull-fights are finished with a dagger) is one of the deadliest places, and death is instantaneous. To get at this spot, however, is a little difficult, unless the horse is lying down. Sometimes he can be got to lower his head; not by force (you might hit the man who is struggling with his head), but by putting something before the horse to which he lowers his head to smell or drink.

Another good place is between the eyes, or rather a shade higher. For this shot, the forehead must be quite vertical: if it slants back, the bullet may glance. When a horse is lying with his head on the ground, I shoot him in the forehead, but you must make allowance for the angle you shoot at, unless you kneel. Something thrown before the horse may make him momentarily lower his head; but generally a horse in pain will hang his head nearly right for this shot. The third place is behind the ear, sideways, to break the neck at the base of the skull; but I do not recommend this shot unless you understand anatomy, as you may bungle it.

Be especially careful that no damage will be done by the bullet, should it go on after having penetrated the horse. A brick wall is a good background; but, if you miss the horse and hit the wall, you may have a dangerous ricochet off it.

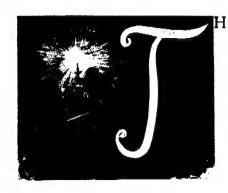
Do not let anyone hold the horse, and do not allow spectators to stand before you or at the side of the animal. A horse so injured as to require killing will stand quietly enough to need no holding; and if you are gentle with him, and do not advance too quickly towards him, or make any sudden movement, he will in all probability keep quiet.

Do not shoot a broken-backed, or presumably broken-backed horse, without first making sure that he has not simply sprained himself. A prick with a pin behind the seat of any injury may show if he has any feeling in his hind quarters. If he has, do not shoot till a veterinary surgeon has arrived and pronounced the case hopeless.



CHAPTER XXXV

SHOOTING IN THE DARK



HERE are occasions on which it is necessary to shoot at night, as for a night-watchman; or in the case of a wild animal's jumping into camp and carrying off someone; or in night attacks. For this work, an exceptionally large dead white

front sight (either a fixed one or an adjustable one on a hinge or kept for handiness in the stock of the revolver, and which can be fitted on when necessary) is needful. This sort of sight, though, can only be seen if there is moonlight, or at least some glimmer of light.

In pitch-darkness, a large front sight with both itself and the rib of the barrel coated with luminous paint is useful, provided the revolver is, for several hours previous to being used, exposed to strong sunlight. If the revolver is kept all day in a case or holster, the paint will not shine at night. Also, in cleaning the revolver, the paint may be spoilt and may require renewing. I would not advise painting any revolver you care about.

My patent electric rifle sight for night shooting is at present too cumbersome for application to a revolver; moreover, as I remark below, one ought to be able to use a revolver at short range by sense of direction, without looking along sights.

This is perhaps the most satisfactory way,—learning to shoot in the dark by the sense of direction, by pointing your revolver in the direction in which you conjecture the object to be, not attempting to see your sights or to "draw a bead."

One can often see an animal on a very dark night by crouching down and getting it against the sky-line; and yet, on looking through the sights, you cannot discern anything.

One form of practice is to have a target made of tissue paper, with a candle behind it to illuminate it. The sights are consequently seen in silhouette against it. This was the principle of the "Owl" series of prizes shot for in the early days of Wimbledon in the evenings. What I think better, so as to teach shooting by sense of direction, is to have one or more metal targets about a foot square, hung by wires (these will give out a ringing sound when struck, and the rest of the butt should be of sand, or sods, or wood, so as to make a different sound). Have a small sleigh-bell hung behind the middle of each target, operated by strings held by an assistant standing behind you.

Now, let him ring the bells at random, you firing by sense of direction towards where you hear each bell ring.

This practice can also be done in a shooting-gallery at night with all the lights turned down, and it is perhaps safer there than out-of-doors.

You can even have targets behind you, and swing round and "snap" at them; but this, and in fact all night shooting, is very dangerous, unless you can be absolutely certain that the bullets will do no damage, however wildly they may fly.

A man with a good ear can do surprisingly accurate work in this style of shooting.

Such practice can be done in daylight by being blindfolded; and then your assistant can notice where your misses go, and help you to improve your shooting.

I will describe my patent electric sight, though it is too complicated for a revolver.

The object of my invention is to facilitate the sighting of firearms in the dusk or at night.

To this end I adapt to the weapon an electrical front sight and an electric battery with a minute incandescent lamp.

In the accompanying drawing I have shown my invention as applied to the Martini rifle by way of example.

Fig. 1 is a side view of the rifle complete, with my invention applied thereto.

Fig. 2 is a similar view, partly in section, showing the battery inside the stock.

Fig. 3 is a rear-end view of the rifle.

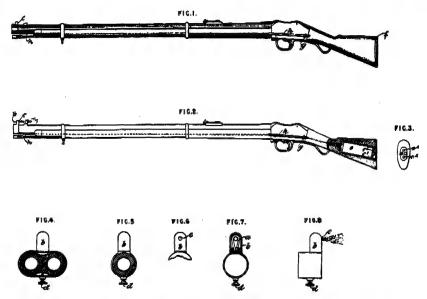
Figs. 4 and 5 are front views on an enlarged scale of a double- and single-barrelled rifle respectively, with an electric front sight affixed thereto.

Fig. 6 represents the sight as seen by the firer.

Fig. 8 is a side view of the lamp case.

The incandescent lamp a (made as small as practicable) is enclosed in a metal case b in which is a small hole

c facing the firer, so that a bright spot of light appears just above or on a line with the ordinary fixed sight of the weapon when the current from the generator of battery is passing. The lower part of the case b is or a form to fit round the barrel and is provided with a



small clamping screw d by which it can be secured in the proper position.

The aperture c is protected by a piece of glass, and a reflector is arranged within the case b opposite, thus making a miniature electrical bull's-eye or dark lantern of the lamp. The lamp is mounted on a spring or springs after the manner commonly practised with respect to incandescent lamps, and is packed round with cotton-wool, horsehair, or other elastic substance to prevent breakage by the concussion of the rifle on discharge.

The switch g is fixed at a point suitable for operation by the firer in the act of aiming. It may act automatically

when the butt is presented to the shoulder or when the grip is squeezed, or it might be connected with the hammer or striker, so that when the rifle is at full-cock the front sight glows, and when the trigger is pressed the light goes out.

The battery is only of such power as to make the lamp glow sufficiently to enable the firer to see it plainly; as it would otherwise, if too bright, prevent his seeing the object aimed at.

I think I have now given directions how to handle the revolver under most of the circumstances and occasions in which one would have use for it; and I have also, I hope, shown that it can be employed as a more workmanlike and a neater tool than a rifle or scattergun in cases in which the uninitiated would not think of using it.

The revolver is popularly looked upon as an "extinguisher," and I may now, having finished writing for the present, extinguish my candle with one.



APPENDIX

THE LAW OF REVOLVERS IN GREAT BRITAIN AND IRELAND



T is perhaps advisable to explain something about the right of carrying revolvers in England, and the using them in cases of necessity, and first it should be explained that a revolver is a gun so far as the Gun License Act of 1870 (33 and 34 Vict. c. 57) is concerned.

and that a license fee of 10/per annum has to be paid for the privilege of carrying or using one, though a license to kill game will include the lesser gun license. In fact it has even been held that a small toy pocket pistol is a firearm for the purpose of the Act. There are various exceptions to the necessity of taking out this license. and it may be as well to enumerate them, especially as many people keep revolvers in their houses and would be astonished if they thought that a gun license was necessary for the so doing-but it is not, so long as the revolver is kept or used in a dwelling house, or the curtilage of a dwelling house. This is one of the exceptions to the Act and a very proper and necessary exception it is, for it would be most unreasonable to enact that the mere keeping a revolver for the purposes of protection should compel one to take out an annual license. Moreover the enforcing such a restriction would be almost impossible without an inquisitorial search through every house. Probably because there is very little reason for carrying a revolver about with one in this country, the exception does not apply to the so doing, and the mere taking a revolver across the street would technically compel the taking out a license. The curtilage of a house is much the same as courtyard, and would no doubt include a yard and garden adjoining the house, but not a field beyond.

Further exceptions are that no penalty is to be incurred by any person in the naval, military, or volunteer service, or in the constabulary or other police force, but it should be noted that this exception

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only applies where the person claiming it is in the performance of a duty or in target practice, so that the policeman or volunteer off duty would still be subject to the obligation of having a license.

Another exception is that of anyone carrying a firearm belonging to a person having a license or certificate to kill game or having a gun license, if he is carrying it by order of, or for the use of, such licensed or certificated person, only he is bound to give his name and address and the name and address of his employer when called upon.

The occupier of lands using or carrying a firearm for the purpose only of scaring birds or killing vermin on such lands is exempt too, as also anyone using or carrying a firearm for the same purpose on any lands by order of the occupier, if the latter has a game license or certificate or a gun license. Again, a gunsmith or his servant carrying a firearm in the ordinary course of trade, or testing it in a special place, need not have a license.

And lastly, a common carrier carrying a revolver in the ordinary course of business would be exempt.

To show how strict the law is, it may be added that the killing of vermin, which, as above mentioned, is allowed without a license, does not include rabbits.

As the penalty is \mathcal{L} to for carrying firearms without a license, I have thought it advisable to enlarge somewhat fully on the above topic.

There are also various penalties and punishments inflicted on persons misbehaving while in the possession of loaded firearms or wantonly discharging them. Thus anyone who is in possession of a loaded firearm and is found to be drunk may be apprehended, and is liable to a penalty not exceeding 40/, or, in the discretion of the court, to imprisonment with or without hard labour for not more than one month.

Again, every person who in the streets of a town wantonly discharges any firearm to the obstruction, annoyance, or danger of the residents or passengers, is liable to a penalty not exceeding 40/ for each offence, or, in the discretion of the justices, imprisonment for not more than fourteen days (no hard labour).

It is hardly necessary to say that the wrongful use of a revolver as an offensive weapon is very heavily punished, it being provided that anyone who shoots at a person or attempts by drawing a trigger or in any other manner to discharge any kind of loaded arms at a person with intent to commit murder, is guilty of felony and liable to penal servitude for life, or any less term, or to imprisonment for not more than two years with or without hard labour and solitary confinement.

Again, anyone who unlawfully and maliciously wounds, or causes

any grievous bodily harm to any person, or shoots at any person, or by drawing a trigger or in any other manner attempts to discharge any kind of loaded arms at a person, with intent in any of these cases to maim, disfigure, or disable any person, or to do some other grievous bodily harm to any person, or with intent to resist or prevent the lawful apprehension or detainer of any person, is liable to penal servitude for life or for not less than three years, or to imprisonment for not more than two years with or without hard labour and solitary confinement. And "loaded arms" are defined as "any gun, pistol, or other arms which shall be loaded in the barrel with gunpowder or any other explosive substance, and ball, shot, slug, or other destructive material, although the attempt to discharge the same may fail for want of proper priming, or from any other cause." Finally, anyone who unlawfully and maliciously wounds or inflicts any grievous bodily harm upon any person with or without any weapon or instrument, is liable to penal servitude for three years, or to imprisonment for not more than two years with or without hard labour. The words "unlawfully and maliciously" are difficult to construe, and therefore it may be well to state, that a man who fired in the direction of a punt. in order to deter the occupant from fowling in a particular locality. and wounded him in so doing, was convicted of malicious wounding, and generally, that if a wound is caused mischievously and without excuse, the person who inflicted it would probably be found guilty under this enactment.

So much for the strict offences caused by the improperly carrying or making use of revolvers. Before, however, leaving this subject it will be advisable to enter at a little length into the rights which anyone has of using a revolver in self-defence, or in some other analogous manner. Supposing a man has passed through the ordeal of the Gun License Act and is properly and legally carrying a loaded revolver, in what cases of emergency would he be justified in using it? Well this is a very difficult question to answer, and one which in each event would depend entirely on the circumstances of the particular case. It is therefore impossible for me to lay down any exact principles governing every event of the kind which might happen, and I will content myself with stating a few hypothetical instances and what course of conduct might be adopted in each instance.

There is no doubt on this point anyhow,—that one is justified in using a loaded revolver in self-defence, where an attack of such a murderous character is made as to threaten one's own existence, or the infliction of serious bodily harm; and if the assailant should be killed, yet the using of the revolver and so disposing of him would be justifi-

able. The same rule would apply to shooting an assassin who was attempting to kill someone else. For instance, if while standing on a railway platform I were to see a man shooting at someone in a railway carriage, and at such a distance that I could not actively interfere except by shooting, I should be right in firing at the assailant, and though my shot should prove fatal, no blame could be attached to me.

How far one is justified in using a revolver in beating off or capturing burglars in one's house is, as already mentioned, a matter which can only be decided by the facts of the particular case. Assuredly where a man is woke up in the night by the noise of burglars breaking into or already in his house, and seizes his revolver and confronts the robbers, he would be justified in firing if the robbers threatened to attack him, and it is assumed that he would also be right in firing at a robber making off with booty who refused to stop when challenged to do so, if there was no reasonable chance of arresting him in any other way; though in the latter event he should endeavour so to shoot as to cripple rather than kill. Indeed it may be said, extraordinary as the statement may seem, that even in the hurry and skurry of a conflict with burglars the mind should remain calm and collected, so as to judge whether a mortal shot is required, or only one which will "wing" the opponent.

In connection with this branch of the subject, the justification of a fatal shot may to some extent depend on whether the robber was himself armed. If he were, then the killing him would be more easily justifiable than if he were unarmed. This is somewhat instanced by the law regarding an assault and battery in self-defence, which is that where there is an assault the person resisting must show that his assault committed in self-defence is not more violent than he believes necessary in good faith and on reasonable grounds, so that it would not be right to inflict a heavy beating on a person who had only committed a slight assault on one. So when all danger is past and a man strikes a blow not necessary for his defence, he commits an unjustifiable assault and battery,-and this principle would apply to the preventing of crimes, so that though one might be acting correctly in firing at and killing a man who was murderously assaulting a third person, yet, after the assault had been committed, it might be wrong to kill the murderer if he were only discovered when running away, unless that was the only means of arresting him,

Another point which has sometimes exercised the minds of those in the habit of carrying revolvers, is whether they are justified in using such a weapon to put an end to pain on the part of dumb animals where recovery is almost impossible. It may be said generally that no one can with safety interfere in such cases, even with the most benevolent intentions, so that if a horse, dog, or other animal has been so injured as to be suffering extreme agony, yet it would not be legal to put the poor creature out of its misery, unless with the consent of the owner.

The exception has been made by the Injured Animals Act, 1894, but that only empowers a constable to kill a horse, mule, or ass which is so severely injured that it cannot be led away, when the owner is absent or refuses to consent to its destruction, after a certificate from a certified veterinary surgeon that the animal is mortally injured or so severely that it is cruel to keep it alive.

The exception has been introduced by an Act of Parliament passed in 1894 and called "The Injured Animals Act, 1894," the object of which is to provide for the slaughter, without the owner's consent, of horses, mules, or asses, in cases of injury so serious as to make it cruel to keep them alive. It does not apply to other animals than those enumerated above, and is hedged round with such restrictions as to render it of not much avail. These in brief are as follows: A constable must find the animal so severely injured that it cannot without cruelty be led away, the owner must be absent or refuse to consent to the destruction of the animal, and the constable must obtain the certificate of a veterinary surgeon that the animal is mortally injured, or so severely that it is cruel to keep it alive. After doing this the constable may kill the animal.

The foregoing statements as to law are not exhaustive, but made with the intention of helping the revolver-carrying section of the public to know what they are responsible for, and on what occasions of emergency they may safely use their weapons. To make sure that no legal error has crept in, these statements have been submitted to Mr. C. Willoughby Williams, of No. 1, Brick Court Temple, Barrister at Law, who is of opinion that the law as set out is correct.

It will be seen, from what is said above, that if a gun or a game license is obtained, it is not illegal to carry a loaded revolver, so that if anyone had to go along a lonely road, or had received a threatening letter which had alarmed him, he would be quite in his right in taking about with him a loaded revolver. It would even be quite right for anyone to carry about a loaded revolver in his pocket merely as a protection in case he should be unexpectedly attacked, but anyone carrying about with him such an article, should be prepared to use it only on great emergencies and keep a clear head on his shoulders.

Another example of the advantages of carrying a revolver would be if one were attacked by a mad dog. In such a case, if the dog attacked in a ferocious manner, it would be permissible to shoot the dog, but it would not be allowable to shoot a dog on the supposition that he was mad, unless he was attacking one; though, of course, if there were no doubt about the dog's being mad, then, for the sake of others, it would be wise to shoot him.

Again, if while carrying a revolver anyone were passed by a runaway horse, and such horse were about to run over a child, it may be permissible to shoot the horse in order to save the child, if one is too far off to catch hold of the animal. These, however, are all matters of degree, and what would be right and proper to do in one case, in another, almost similar, might be wrong.

THE LAW OF CARRYING WEAPONS IN THE UNITED STATES



HE statutes of the various States upon the subject of carrying weapons are substantially similar, the main differences relating to the persons exempted from their operation, and to the manner of carrying the weapon, some making it an offence to carry the

weapon at all, whether concealed or not; others prohibiting the carrying of concealed weapons only.

These statutes have been held to be police regulations, and not to conflict with the constitutional right of the people to keep and bear arms.

Weapons are considered to be concealed, within the intent of the statutes, when they cannot be readily seen by ordinary observation.

In some of the States, as in Kentucky, Louisiana, and Missouri, the carrying of "deadly" or "dangerous" weapons is prohibited. Most of the States, however, specify the weapons prohibited. Such weapons as pistols, dirks, butcher's or bowie knives, stillettos, daggers, swords, brass knuckles, razors, slugs, etc., are usually specified in nearly all of the statutes.

Officers of the law are usually exempted from the operation of the statutes. The officers must, however, be duly appointed, and in the discharge of their duties at the time of carrying the weapons.

Persons who are threatened with bodily harm, or who have reasonable grounds to apprehend danger or attack, are usually justified in carrying concealed weapons. It is not every idle threat, however, which would justify one in carrying concealed weapons. The threat must be such as to cause a reasonable apprehension of danger. Examples of this exemption are found in the statutes of Alabama, Kentucky, Mississippi, Texas, Maryland, and West Virginia.

Persons on their own premises are frequently exempted from the operation of the statutes. This is so in Arkansas, North Carolina, and Texas.

Some of the statutes exempt persons who are travelling.

This is so in Arkansas, Mississippi, and Texas.

The burden of proving exemption is usually upon the accused. This has been expressly decided in Arkansas, Indiana, Iowa, Kentucky, Missouri, Montana, North Carolina, Tennessee, and Texas. In Michigan, however, it has been held that the prosecution must prove that the defendant does not fall within one of the exemptions.



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